



# Open Source Used In AppDynamics\_OTIS\_Pipeline 22.9.607

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# Jackson JSON processor

Jackson is a high-performance, Free/Open Source JSON processing library.

It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has been in development since 2007.

It is currently developed by a community of developers.

## Licensing

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# 1.3 aws-sdk-for-go v1.40.54

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# 1.4 io-grpc-grpc-protobuf-lite 1.39.0

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*/
```

Found in path(s):

```
* /opt/cola/permits/1183892729_1655096107.2169387/0/grpc-protobuf-lite-1-39-0-sources-  
jar/io/grpc/protobuf/lite/ProtoLiteUtils.java  
* /opt/cola/permits/1183892729_1655096107.2169387/0/grpc-protobuf-lite-1-39-0-sources-  
jar/io/grpc/protobuf/lite/ProtoInputStream.java
```

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*/
```

Found in path(s):

```
* /opt/cola/permits/1183892729_1655096107.2169387/0/grpc-protobuf-lite-1-39-0-sources-  
jar/io/grpc/protobuf/lite/package-info.java
```

## 1.5 junit-5-bill-of-materials 5.8.2

### 1.5.1 Available under license :

```
import java.io.File
```

```
import java.net.URI
```

```
data class License(val name: String, val url: URI, val headerFile: File)
```

```
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```

```
=====
```

```
_Version 2.0, January 2004_
```

```
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```

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## 1.6 kotlin 1.3.50

### 1.6.1 Available under license :

No license file was found, but licenses were detected in source scan.

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ort.kt", "Ranges.kt", "collections/Collections.kt", "collections/Maps.kt", "collections/Sets.kt", "text/StringNumberConversions.kt", "kotlin/UnsignedUtils.kt", "collections/Iterables.kt", "collections/Sequences.kt", "util/Preconditions.kt", "generated/\_ArraysJs.kt", "comparisons/Comparisons.kt", "kotlin/Comparator.kt", "util/Standard.kt", "generated/\_ComparisonsJs.kt", "generated/\_Collections.kt", "kotlin/collections.kt", "collections/Iterators.kt", "generated/\_Comparisons.kt", "generated/\_Maps.kt", "kotlin/ranges.kt", "generated/\_Sequences.kt", "dummy.kt", "generated/\_Sets.kt", "generated/\_Strings.kt", "text/Strings.kt", "kotlin/text/string.kt", "kotlin/UIntArray.kt", "kotlin/UIntArray.kt", "kotlin/ULongArray.kt", "kotlin/ULong.kt", "kotlin/UShortArray.kt", "generated/\_UArrays.kt", "generated/\_UCollections.kt", "generated/\_UComparisons.kt", "generated/\_URanges.kt", "generated/\_USequences.kt", "annotation/Annotations.kt", "Collections.kt", 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```

define.amd) {\r\n    define('kotlin', ['exports'], factory);\r\n  }\r\n  else if (typeof exports === 'object') {\r\n
factory(module.exports);\r\n  }\r\n  else {\r\n    root.kotlin = {};\r\n    factory(root.kotlin);\r\n  }\r\n}(this,
function (Kotlin) {\r\n  var _ = Kotlin;\r\n\r\n  insertContent();\r\n});\r\n"/>\r\n * Copyright 2010-2018
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Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\nKotlin.isArray = function
(a) {\r\n  return (Array.isArray(a) || a instanceof Int8Array) && a.$type$ ===
'BooleanArray'\r\n);\r\n\r\nKotlin.isByteArray = function (a) {\r\n  return a instanceof Int8Array && a.$type$
!=='BooleanArray'\r\n);\r\n\r\nKotlin.isShortArray = function (a) {\r\n  return a instanceof
Int16Array\r\n);\r\n\r\nKotlin.isCharArray = function (a) {\r\n  return a instanceof Uint16Array && a.$type$ ===
'CharArray'\r\n);\r\n\r\nKotlin.isIntArray = function (a) {\r\n  return a instanceof
Int32Array\r\n);\r\n\r\nKotlin.isFloatArray = function (a) {\r\n  return a instanceof
Float32Array\r\n);\r\n\r\nKotlin.isDoubleArray = function (a) {\r\n  return a instanceof
Float64Array\r\n);\r\n\r\nKotlin.isLongArray = function (a) {\r\n  return Array.isArray(a) && a.$type$ ===
'LongArray'\r\n);\r\n\r\nKotlin.isArray = function (a) {\r\n  return Array.isArray(a) &&
!a.$type$;\r\n);\r\n\r\nKotlin.isArrayish = function (a) {\r\n  return Array.isArray(a) ||
ArrayBuffer.isView(a)\r\n);\r\n\r\nKotlin.arrayToString = function (a) {\r\n  var toString = Kotlin.isCharArray(a) ?
String.fromCharCode : Kotlin.toString;\r\n  return '[' + Array.prototype.map.call(a, function(e) { return
toString(e); }).join(', ') + ']';\r\n);\r\n\r\nKotlin.arrayDeepToString = function (arr) {\r\n  return
Kotlin.kotlin.collections.contentDeepToStringImpl(arr);\r\n);\r\n\r\nKotlin.arrayEquals = function (a, b) {\r\n  if (a
=== b) {\r\n    return true;\r\n  }\r\n  if (!Kotlin.isArrayish(b) || a.length !== b.length) {\r\n    return false;\r\n
}\r\n\r\n  for (var i = 0, n = a.length; i < n; i++) {\r\n    if (!Kotlin.equals(a[i], b[i])) {\r\n      return false;\r\n
}\r\n  }\r\n  return true;\r\n);\r\n\r\nKotlin.arrayDeepEquals = function (a, b) {\r\n  return
Kotlin.kotlin.collections.contentDeepEqualsImpl(a, b);\r\n);\r\n\r\nKotlin.arrayHashCode = function (arr) {\r\n  var
result = 1;\r\n  for (var i = 0, n = arr.length; i < n; i++) {\r\n    result = ((31 * result | 0) +
Kotlin.hashCode(arr[i])) | 0;\r\n  }\r\n  return result;\r\n);\r\n\r\nKotlin.arrayDeepHashCode = function (arr) {\r\n
return Kotlin.kotlin.collections.contentDeepHashCodeImpl(arr);\r\n);\r\n\r\nKotlin.primitiveArraySort = function
(array) {\r\n  array.sort(Kotlin.doubleCompareTo)\r\n);\r\n"/>\r\n * Copyright 2010-2018 JetBrains s.r.o. and
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that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\nKotlin.getCallableRef = function(name, f) {\r\n
f.callableName = name;\r\n  return f;\r\n);\r\n\r\nKotlin.getPropertyCallableRef = function(name, paramCount,
getter, setter) {\r\n  getter.get = getter;\r\n  getter.set = setter;\r\n  getter.callableName = name;\r\n  return
getPropertyRefClass(getter, setter, propertyRefClassMetadataCache[paramCount]);\r\n);\r\n\r\n\r\nfunction
getPropertyRefClass(obj, setter, cache) {\r\n  obj.$metadata$ = getPropertyRefMetadata(typeof setter ===
'function' ? cache.mutable : cache.immutable);\r\n  obj.constructor = obj;\r\n  return obj;\r\n);\r\n\r\nvar
propertyRefClassMetadataCache = [\r\n  {\r\n    mutable: { value: null, implementedInterface: function () {\r\n
return Kotlin.kotlin.reflect.KMutableProperty0 }\r\n    },\r\n    immutable: { value: null,
implementedInterface: function () {\r\n    return Kotlin.kotlin.reflect.KProperty0 }\r\n    }\r\n  },\r\n  {\r\n
mutable: { value: null, implementedInterface: function () {\r\n    return
Kotlin.kotlin.reflect.KMutableProperty1 }\r\n    },\r\n    immutable: { value: null, implementedInterface:
function () {\r\n    return Kotlin.kotlin.reflect.KProperty1 }\r\n    }\r\n  }\r\n];\r\n\r\nfunction
getPropertyRefMetadata(cache) {\r\n  if (cache.value === null) {\r\n    cache.value = {\r\n      interfaces:
[cache.implementedInterface()],\r\n      baseClass: null,\r\n      functions: {},\r\n      properties: {},\r\n
      types: {},\r\n      staticMembers: {} }\r\n    };\r\n  }\r\n  return cache.value;\r\n);\r\n"/>\r\n * Copyright
2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. \r\n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\nKotlin.toShort =
function (a) {\r\n  return (a & 0xFFFF) << 16 >> 16;\r\n);\r\n\r\nKotlin.toByte = function (a) {\r\n  return (a &
0xFF) << 24 >> 24;\r\n);\r\n\r\nKotlin.toChar = function (a) {\r\n  return a &
0xFFFF;\r\n);\r\n\r\nKotlin.numberToLong = function (a) {\r\n  return a instanceof Kotlin.Long ? a :

```



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overflows back into a negative). Not handling this case would often result in infinite recursion.
 * @param {number} low The low (signed) 32 bits of the long.
 * @param {number} high The high (signed) 32 bits of the long.
 * @constructor
 * @final
 Kotlin.Long = function(low, high) {
 /**
 * @type {number}
 * @private
 */
 this.low_ = low | 0; // force into 32 signed bits.
 /**
 * @type {number}
 * @private
 */
 this.high_ = high | 0; // force into 32 signed bits.
 };
 Kotlin.Long.$metadata$ = {
 kind: "class",
 simpleName: "Long",
 interfaces: []
 };
 // NOTE: Common constant values ZERO, ONE, NEG_ONE, etc. are defined below from methods on which they depend.
 // **
 A cache of the Long representations of small integer values.
 * @type {!Object}
 * @private
 Kotlin.Long.IntCache_ = {};
 // **
 Returns a Long representing the given (32-bit) integer value.
 * @param {number} value The 32-bit integer in question.
 * @return {!Kotlin.Long} The corresponding Long value.
 Kotlin.Long.fromInt = function(value) {
 if (-128 <= value && value < 128) {
 var cachedObj = Kotlin.Long.IntCache_[value];
 if (cachedObj) {
 return cachedObj;
 }
 var obj = new Kotlin.Long(value | 0, value < 0 ? -1 : 0);
 if (-128 <= value && value < 128) {
 Kotlin.Long.IntCache_[value] = obj;
 }
 return obj;
 };
 // **
 Converts this number value to `Long`. The fractional part, if any, is rounded down.
 * Returns zero if this `Double` value is `NaN`, `Long.MIN_VALUE` if it's less than `Long.MIN_VALUE`, `Long.MAX_VALUE` if it's bigger than `Long.MAX_VALUE`.
 * @param {number} value The number in question.
 * @return {!Kotlin.Long} The corresponding Long value.
 Kotlin.Long.fromNumber = function(value) {
 if (isNaN(value)) {
 return Kotlin.Long.ZERO;
 }
 else if (value <= -Kotlin.Long.TWO_PWR_63_DBL_) {
 return Kotlin.Long.MIN_VALUE;
 }
 else if (value < 0) {
 return Kotlin.Long.fromNumber(-value).negate();
 }
 else if (value >= Kotlin.Long.TWO_PWR_63_DBL_) {
 return Kotlin.Long.MAX_VALUE;
 }
 else if (value < 0) {
 return Kotlin.Long.fromNumber(-value).negate();
 }
 else {
 return new Kotlin.Long(
 (value % Kotlin.Long.TWO_PWR_32_DBL_) | 0,
 (value / Kotlin.Long.TWO_PWR_32_DBL_) | 0);
 };
 };
 // **
 Returns a Long representing the 64-bit integer that comes by concatenating the given high and low bits. Each is assumed to use 32 bits.
 * @param {number} lowBits The low 32-bits.
 * @param {number} highBits The high 32-bits.
 * @return {!Kotlin.Long} The corresponding Long value.
 Kotlin.Long.fromBits = function(lowBits, highBits) {
 return new Kotlin.Long(lowBits, highBits);
 };
 // **
 Returns a Long representation of the given string, written using the given radix.
 * @param {string} str The textual representation of the Long.
 * @param {number=} opt_radix The radix in which the text is written.
 * @return {!Kotlin.Long} The corresponding Long value.
 Kotlin.Long.fromString = function(str, opt_radix) {
 if (str.length == 0) {
 throw Error('number format error: empty string');
 }
 var radix = opt_radix || 10;
 if (radix < 2 || 36 < radix) {
 throw Error('radix out of range: ' + radix);
 }
 if (str.charAt(0) == '-') {
 return Kotlin.Long.fromString(str.substring(1), radix).negate();
 }
 else if (str.indexOf('-') >= 0) {
 throw Error('number format error: interior "-" character: ' + str);
 }
 // Do several (8) digits each time through the loop, so as to minimize the calls to the very expensive emulated div.
 var radixToPower = Kotlin.Long.fromNumber(Math.pow(radix, 8));
 var result = Kotlin.Long.ZERO;
 for (var i = 0; i < str.length; i += 8) {
 var size = Math.min(8, str.length - i);
 var value = parseInt(str.substring(i, i + size), radix);
 if (size < 8) {
 var power = Kotlin.Long.fromNumber(Math.pow(radix, size));
 result = result.multiply(power).add(Kotlin.Long.fromNumber(value));
 }
 else {
 result = result.multiply(radixToPower);
 result = result.add(Kotlin.Long.fromNumber(value));
 }
 }
 return result;
 };
 // NOTE: the compiler should inline these constant values below and then remove these variables, so there should be no runtime penalty for these.
 // **
 Number used repeated below in calculations. This must appear before the first call to any from* function below.
 * @type {number}
 * @private
 Kotlin.Long.TWO_PWR_16_DBL_ = 1 << 16;
 * @type {number}
 * @private
 Kotlin.Long.TWO_PWR_24_DBL_ = 1 << 24;
 * @type {number}
 * @private
 Kotlin.Long.TWO_PWR_32_DBL_ = Kotlin.Long.TWO_PWR_16_DBL_ *
 Kotlin.Long.TWO_PWR_16_DBL_;
 * @type {number}
 * @private

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* Kotlin.Long.TWO_PWR_31_DBL_ = Kotlin.Long.TWO_PWR_32_DBL_ / 2;
* Kotlin.Long.TWO_PWR_48_DBL_ = Kotlin.Long.TWO_PWR_32_DBL_
* Kotlin.Long.TWO_PWR_16_DBL_;
* Kotlin.Long.TWO_PWR_64_DBL_ = Kotlin.Long.TWO_PWR_32_DBL_
Kotlin.Long.TWO_PWR_32_DBL_;
* Kotlin.Long.TWO_PWR_63_DBL_ = Kotlin.Long.TWO_PWR_64_DBL_ / 2;
* Kotlin.Long.ZERO = Kotlin.Long.fromInt(0);
* Kotlin.Long.ONE = Kotlin.Long.fromInt(1);
* Kotlin.Long.NEG_ONE = Kotlin.Long.fromInt(-1);
* Kotlin.Long.MAX_VALUE = Kotlin.Long.fromBits(0xFFFFFFFF | 0, 0x7FFFFFFF | 0);
* Kotlin.Long.MIN_VALUE = Kotlin.Long.fromBits(0, 0x80000000 | 0);
* Kotlin.Long.TWO_PWR_24_ = Kotlin.Long.fromInt(1 << 24);
* Kotlin.Long.prototype.toInt = function() {
    return this.low_;
}
* Kotlin.Long.prototype.toNumber = function() {
    return this.high_ * Kotlin.Long.TWO_PWR_32_DBL_ +
        this.getLowBitsUnsigned();
}
* Kotlin.Long.prototype.hashCode = function() {
    return this.high_ ^ this.low_;
}
* Kotlin.Long.prototype.toString = function(opt_radix) {
    var radix = opt_radix || 10;
    if (radix < 2 || 36 < radix) {
        throw Error('radix out of range: ' + radix);
    }
    if (this.isZero()) {
        return '0';
    }
    if (this.isNegative()) {
        if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {
            // We need to change the Long value before it can be negated, so we remove
            // the bottom-most digit in this base and then recurse to do the rest.
            var radixLong = Kotlin.Long.fromNumber(radix);
            var div = this.div(radixLong);
            var rem = div.multiply(radixLong).subtract(this);
            return div.toString(radix) + rem.toInt().toString(radix);
        } else {
            return '-' + this.negate().toString(radix);
        }
    }
    // Do several (6) digits each time through the loop, so as to
    // minimize the calls to the very expensive emulated div.
    var radixToPower = Kotlin.Long.fromNumber(Math.pow(radix, 6));
    var rem = this;
    var result = '';
    while (true) {
        var remDiv = rem.div(radixToPower);
        var intVal = rem.subtract(remDiv.multiply(radixToPower)).toInt();
        var digits = intVal.toString(radix);
        rem = remDiv;
        if (rem.isZero()) {
            return digits + result;
        } else {
            while (digits.length < 6) {
                digits = '0' + digits;
            }
            result = ' ' + digits + result;
        }
    }
}
* Kotlin.Long.prototype.getHighBits = function() {
    return this.high_;
}
* Kotlin.Long.prototype.getLowBits = function() {
    return this.low_;
}
* Kotlin.Long.prototype.getLowBitsUnsigned = function() {
    return (this.low_ >= 0) ? this.low_ :
        Kotlin.Long.TWO_PWR_32_DBL_ + this.low_;
}
* Kotlin.Long.prototype.getNumBitsAbs = function() {
    if (this.isNegative()) {
        if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {
            return 64;
        } else {
            return this.negate().getNumBitsAbs();
        }
    } else {
        var val = this.high_ != 0 ? this.high_ : this.low_;
        for (var bit = 31; bit > 0; bit--) {
            if ((val & (1 << bit)) != 0) {
                break;
            }
        }
        return this.high_ != 0 ? bit + 33 : bit + 1;
    }
}
* Kotlin.Long.prototype.isZero = function() {
    return this.high_ == 0 && this.low_ == 0;
}
* Kotlin.Long.prototype.isNegative = function() {
    return this.high_ < 0;
}
* Kotlin.Long.prototype.isOdd = function() {
    return (this.low_ & 1) == 1;
}
* Kotlin.Long.prototype.equalsLong = function(other) {
    return (this.high_ == other.high_) && (this.low_ ==

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other.low_);
}

/**
 * @param {Kotlin.Long} other Long to compare against.
 * @return {boolean} Whether this Long does not equal the other.
 */
Kotlin.Long.prototype.notEqualsLong = function(other) {
    return (this.high_ != other.high_) || (this.low_ != other.low_);
}

/**
 * @param {Kotlin.Long} other Long to compare against.
 * @return {boolean} Whether this Long is less than the other.
 */
Kotlin.Long.prototype.lessThan = function(other) {
    return this.compare(other) < 0;
}

/**
 * @param {Kotlin.Long} other Long to compare against.
 * @return {boolean} Whether this Long is less than or equal to the other.
 */
Kotlin.Long.prototype.lessThanOrEqual = function(other) {
    return this.compare(other) <= 0;
}

/**
 * @param {Kotlin.Long} other Long to compare against.
 * @return {boolean} Whether this Long is greater than the other.
 */
Kotlin.Long.prototype.greaterThan = function(other) {
    return this.compare(other) > 0;
}

/**
 * @param {Kotlin.Long} other Long to compare against.
 * @return {boolean} Whether this Long is greater than or equal to the other.
 */
Kotlin.Long.prototype.greaterThanOrEqual = function(other) {
    return this.compare(other) >= 0;
}

/**
 * Compares this Long with the given one.
 * @param {Kotlin.Long} other Long to compare against.
 * @return {number} 0 if they are the same, 1 if the this is greater, and -1 if the given one is greater.
 */
Kotlin.Long.prototype.compare = function(other) {
    if (this.equalsLong(other)) {
        return 0;
    }
    var thisNeg = this.isNegative();
    var otherNeg = other.isNegative();
    if (thisNeg && !otherNeg) {
        return -1;
    }
    if (!thisNeg && otherNeg) {
        return 1;
    }
    // at this point, the signs are the same, so subtraction will not overflow
    if (this.subtract(other).isNegative()) {
        return -1;
    }
    else {
        return 1;
    }
}

/**
 * @return {!Kotlin.Long} The negation of this value.
 */
Kotlin.Long.prototype.negate = function() {
    if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {
        return Kotlin.Long.MIN_VALUE;
    }
    else {
        return this.not().add(Kotlin.Long.ONE);
    }
}

/**
 * Returns the sum of this and the given Long.
 * @param {Kotlin.Long} other Long to add to this one.
 * @return {!Kotlin.Long} The sum of this and the given Long.
 */
Kotlin.Long.prototype.add = function(other) {
    // Divide each number into 4 chunks of 16 bits, and then sum the chunks.
    var a48 = this.high_ >>> 16;
    var a32 = this.high_ & 0xFFFF;
    var a16 = this.low_ >>> 16;
    var a00 = this.low_ & 0xFFFF;
    var b48 = other.high_ >>> 16;
    var b32 = other.high_ & 0xFFFF;
    var b16 = other.low_ >>> 16;
    var b00 = other.low_ & 0xFFFF;
    var c48 = 0, c32 = 0, c16 = 0, c00 = 0;
    c00 += a00 + b00;
    c16 += c00 >>> 16;
    c00 &= 0xFFFF;
    c16 += a16 + b16;
    c32 += c16 >>> 16;
    c16 &= 0xFFFF;
    c32 += a32 + b32;
    c48 += c32 >>> 16;
    c32 &= 0xFFFF;
    c48 += a48 + b48;
    c48 &= 0xFFFF;
    return Kotlin.Long.fromBits((c16 << 16) | c00, (c48 << 16) | c32);
}

/**
 * Returns the difference of this and the given Long.
 * @param {Kotlin.Long} other Long to subtract from this.
 * @return {!Kotlin.Long} The difference of this and the given Long.
 */
Kotlin.Long.prototype.subtract = function(other) {
    return this.add(other.negate());
}

/**
 * Returns the product of this and the given long.
 * @param {Kotlin.Long} other Long to multiply with this.
 * @return {!Kotlin.Long} The product of this and the other.
 */
Kotlin.Long.prototype.multiply = function(other) {
    if (this.isZero()) {
        return Kotlin.Long.ZERO;
    }
    else if (other.isZero()) {
        return Kotlin.Long.ZERO;
    }
    else if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {
        return other.isOdd() ? Kotlin.Long.MIN_VALUE : Kotlin.Long.ZERO;
    }
    else if (other.equalsLong(Kotlin.Long.MIN_VALUE)) {
        return this.isOdd() ? Kotlin.Long.MIN_VALUE : Kotlin.Long.ZERO;
    }
    else if (this.isNegative() && other.isNegative()) {
        return this.negate().multiply(other.negate());
    }
    else if (other.isNegative()) {
        return this.negate().multiply(other.negate());
    }
    else if (this.isNegative()) {
        return this.multiply(other.negate()).negate();
    }
    // If both longs are small, use float multiplication
    if (this.lessThan(Kotlin.Long.TWO_PWR_24_) && other.lessThan(Kotlin.Long.TWO_PWR_24_)) {
        return Kotlin.Long.fromNumber(this.toNumber() * other.toNumber());
    }
    // Divide each long into 4 chunks of 16 bits, and then add up 4x4 products.
    // We can skip products that would overflow.
    var a48 = this.high_ >>> 16;
    var a32 = this.high_ & 0xFFFF;
    var a16 = this.low_ >>> 16;
    var a00 = this.low_ & 0xFFFF;
    var b48 = other.high_ >>> 16;
    var b32 = other.high_ & 0xFFFF;
    var b16 = other.low_ >>> 16;
    var b00 = other.low_ & 0xFFFF;
    var c48 = 0, c32 = 0, c16 = 0, c00 = 0;
    c00 += a00 * b00;

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c16 += c00 >>> 16;\r\n c00 &= 0xFFFF;\r\n c16 += a16 * b00;\r\n c32 += c16 >>> 16;\r\n c16 &= 0xFFFF;\r\n
c16 += a00 * b16;\r\n c32 += c16 >>> 16;\r\n c16 &= 0xFFFF;\r\n c32 += a32 * b00;\r\n c48 += c32 >>> 16;\r\n
c32 &= 0xFFFF;\r\n c32 += a16 * b16;\r\n c48 += c32 >>> 16;\r\n c32 &= 0xFFFF;\r\n c32 += a00 * b32;\r\n
c48 += c32 >>> 16;\r\n c32 &= 0xFFFF;\r\n c48 += a48 * b00 + a32 * b16 + a16 * b32 + a00 * b48;\r\n c48 &=
0xFFFF;\r\n return Kotlin.Long.fromBits((c16 << 16) | c00, (c48 << 16) | c32);\r\n};\r\n\r\n\r\n**\r\n * Returns this
Long divided by the given one.\r\n * @param {Kotlin.Long} other Long by which to divide.\r\n * @return
{!Kotlin.Long} This Long divided by the given one.\r\n */\r\nKotlin.Long.prototype.div = function(other) {\r\n if
(other.isZero()) {\r\n throw Error('division by zero');\r\n } else if (this.isZero()) {\r\n return
Kotlin.Long.ZERO;\r\n }\r\n\r\n if (this.equalsLong(Kotlin.Long.MIN_VALUE)) {\r\n if
(other.equalsLong(Kotlin.Long.ONE) ||\r\n other.equalsLong(Kotlin.Long.NEG_ONE)) {\r\n return
Kotlin.Long.MIN_VALUE; // recall that -MIN_VALUE == MIN_VALUE\r\n } else if
(other.equalsLong(Kotlin.Long.MIN_VALUE)) {\r\n return Kotlin.Long.ONE;\r\n } else {\r\n // At this
point, we have |other| >= 2, so |this/other| < |MIN_VALUE|.\r\n var halfThis = this.shiftRight(1);\r\n var
approx = halfThis.div(other).shiftLeft(1);\r\n if (approx.equalsLong(Kotlin.Long.ZERO)) {\r\n return
other.isNegative() ? Kotlin.Long.ONE : Kotlin.Long.NEG_ONE;\r\n } else {\r\n var rem =
this.subtract(other.multiply(approx));\r\n var result = approx.add(rem.div(other));\r\n return result;\r\n
}\r\n }\r\n } else if (other.equalsLong(Kotlin.Long.MIN_VALUE)) {\r\n return Kotlin.Long.ZERO;\r\n
}\r\n\r\n if (this.isNegative()) {\r\n if (other.isNegative()) {\r\n return this.negate().div(other.negate());\r\n
} else {\r\n return this.negate().div(other.negate());\r\n }\r\n } else if (other.isNegative()) {\r\n return
this.div(other.negate()).negate();\r\n }\r\n\r\n // Repeat the following until the remainder is less than other: find
a\r\n // floating-point that approximates remainder / other *from below*, add this\r\n // into the result, and subtract
it from the remainder. It is critical that\r\n // the approximate value is less than or equal to the real value so that
the\r\n // remainder never becomes negative.\r\n var res = Kotlin.Long.ZERO;\r\n var rem = this;\r\n while
(rem.greaterThanOrEqual(other)) {\r\n // Approximate the result of division. This may be a little greater or\r\n //
smaller than the actual value.\r\n var approx = Math.max(1, Math.floor(rem.toNumber() /
other.toNumber()));\r\n // We will tweak the approximate result by changing it in the 48-th digit or\r\n // the
smallest non-fractional digit, whichever is larger.\r\n var log2 = Math.ceil(Math.log(approx) / Math.LN2);\r\n
var delta = (log2 <= 48) ? 1 : Math.pow(2, log2 - 48);\r\n\r\n // Decrease the approximation until it is smaller than
the remainder. Note\r\n // that if it is too large, the product overflows and is negative.\r\n var approxRes =
Kotlin.Long.fromNumber(approx);\r\n var approxRem = approxRes.multiply(other);\r\n while
(approxRem.isNegative() || approxRem.greaterThan(rem)) {\r\n approx -= delta;\r\n approxRes =
Kotlin.Long.fromNumber(approx);\r\n approxRem = approxRes.multiply(other);\r\n }\r\n\r\n // We know the
answer can't be zero... and actually, zero would cause\r\n // infinite recursion since we would make no
progress.\r\n if (approxRes.isZero()) {\r\n approxRes = Kotlin.Long.ONE;\r\n }\r\n\r\n res =
res.add(approxRes);\r\n rem = rem.subtract(approxRem);\r\n }\r\n\r\n return res;\r\n};\r\n\r\n\r\n**\r\n * Returns this
Long modulo the given one.\r\n * @param {Kotlin.Long} other Long by which to mod.\r\n * @return
{!Kotlin.Long} This Long modulo the given one.\r\n */\r\nKotlin.Long.prototype.modulo = function(other) {\r\n
return this.subtract(this.div(other).multiply(other));\r\n};\r\n\r\n\r\n**\r\n * @return {!Kotlin.Long} The bitwise-NOT of
this value. */\r\nKotlin.Long.prototype.not = function() {\r\n return Kotlin.Long.fromBits(~this.low_,
~this.high_);\r\n};\r\n\r\n\r\n**\r\n * Returns the bitwise-AND of this Long and the given one.\r\n * @param
{Kotlin.Long} other The Long with which to AND.\r\n * @return {!Kotlin.Long} The bitwise-AND of this and the
other.\r\n */\r\nKotlin.Long.prototype.and = function(other) {\r\n return Kotlin.Long.fromBits(this.low_ &
other.low_,\r\n this.high_ & other.high_);\r\n};\r\n\r\n\r\n**\r\n * Returns the bitwise-OR of
this Long and the given one.\r\n * @param {Kotlin.Long} other The Long with which to OR.\r\n * @return
{!Kotlin.Long} The bitwise-OR of this and the other.\r\n */\r\nKotlin.Long.prototype.or = function(other) {\r\n
return Kotlin.Long.fromBits(this.low_ | other.low_,\r\n this.high_ |
other.high_);\r\n};\r\n\r\n\r\n**\r\n * Returns the bitwise-XOR of this Long and the given one.\r\n * @param
{Kotlin.Long} other The Long with which to XOR.\r\n * @return {!Kotlin.Long} The bitwise-XOR of this and the

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    }|r|n        return result;|r|n        } else {|r|n        var y = Math.exp(x);|r|n        var y1 = 1 /
y;|r|n        if (!isFinite(y)) return Math.exp(x - Math.LN2);|r|n        if (!isFinite(y1)) return -Math.exp(-x -
Math.LN2);|r|n        return (y - y1) / 2;|r|n        }|r|n        };|r|n        }|r|n        if (typeof Math.cosh ===
"undefined") {|r|n        Math.cosh = function(x) {|r|n        var y = Math.exp(x);|r|n        var y1 = 1 / y;|r|n
if (!isFinite(y) || !isFinite(y1)) return Math.exp(Math.abs(x) - Math.LN2);|r|n        return (y + y1) / 2;|r|n
};|r|n        }|r|n|r|n        if (typeof Math.tanh === "undefined") {|r|n        Math.tanh = function(x){|r|n        if
(Math.abs(x) < taylor_n_bound) {|r|n        var result = x;|r|n        if (Math.abs(x) > taylor_2_bound) {|r|n
result -= (x * x * x) / 3;|r|n        }|r|n        return result;|r|n        }|r|n        else {|r|n
var a = Math.exp(+x), b = Math.exp(-x);|r|n        return a === Infinity ? 1 : b === Infinity ? -1 : (a - b) / (a +
b);|r|n        }|r|n        };|r|n        }|r|n|r|n        // Inverse hyperbolic function implementations derived from boost special
math functions,|r|n        // Copyright Eric Ford & Hubert Holin 2001.|r|n|r|n        if (typeof Math.asinh === "undefined")
{|r|n        var asinh = function(x) {|r|n        if (x >= +taylor_n_bound)|r|n        {|r|n        if (x >
upper_taylor_n_bound)|r|n        {|r|n        if (x > upper_taylor_2_bound)|r|n        {|r|n
// approximation by laurent series in 1/x at 0+ order from -1 to 0|r|n        return Math.log(x) +
Math.LN2;|r|n        }|r|n        else|r|n        {|r|n        // approximation by laurent
series in 1/x at 0+ order from -1 to 1|r|n        return Math.log(x * 2 + (1 / (x * 2)));|r|n        }|r|n
}|r|n        else|r|n        {|r|n        return Math.log(x + Math.sqrt(x * x + 1));|r|n        }|r|n
}|r|n        else if (x <= -taylor_n_bound)|r|n        {|r|n        return -asinh(-x);|r|n        }|r|n
else|r|n        {|r|n        // approximation by taylor series in x at 0 up to order 2|r|n        var result = x;|r|n
if (Math.abs(x) >= taylor_2_bound)|r|n        {|r|n        var x3 = x * x * x;|r|n        //
approximation by taylor series in x at 0 up to order 4|r|n        result -= x3 / 6;|r|n        }|r|n
return result;|r|n        }|r|n        };|r|n        Math.asinh = asinh;|r|n        }|r|n        if (typeof Math.acosh ===
"undefined") {|r|n        Math.acosh = function(x) {|r|n        if (x < 1)|r|n        {|r|n        return NaN;|r|n
}|r|n        else if (x - 1 >= taylor_n_bound)|r|n        {|r|n        if (x > upper_taylor_2_bound)|r|n
{|r|n        // approximation by laurent series in 1/x at 0+ order from -1 to 0|r|n        return Math.log(x)
+ Math.LN2;|r|n        }|r|n        else|r|n        {|r|n        return Math.log(x + Math.sqrt(x * x -
1));|r|n        }|r|n        }|r|n        else|r|n        {|r|n        var y = Math.sqrt(x - 1);|r|n        //
approximation by taylor series in y at 0 up to order 2|r|n        var result = y;|r|n        if (y >=
taylor_2_bound)|r|n        {|r|n        var y3 = y * y * y;|r|n        // approximation by taylor series in
y at 0 up to order 4|r|n        result -= y3 / 12;|r|n        }|r|n|r|n        return Math.sqrt(2) * result;|r|n
}|r|n        };|r|n        }|r|n        if (typeof Math.atanh === "undefined") {|r|n        Math.atanh = function(x) {|r|n
if (Math.abs(x) < taylor_n_bound) {|r|n        var result = x;|r|n        if (Math.abs(x) > taylor_2_bound)
{|r|n        result += (x * x * x) / 3;|r|n        }|r|n        return result;|r|n        }|r|n        return
Math.log((1 + x) / (1 - x)) / 2;|r|n        }|r|n        }|r|n        if (typeof Math.log1p === "undefined") {|r|n        Math.log1p
= function(x) {|r|n        if (Math.abs(x) < taylor_n_bound) {|r|n        var x2 = x * x;|r|n        var x3 = x2
* x;|r|n        var x4 = x3 * x;|r|n        // approximation by taylor series in x at 0 up to order 4|r|n
return (-x4 / 4 + x3 / 3 - x2 / 2 + x);|r|n        }|r|n        return Math.log(x + 1);|r|n        };|r|n        }|r|n        if (typeof
Math.expm1 === "undefined") {|r|n        Math.expm1 = function(x) {|r|n        if (Math.abs(x) < taylor_n_bound)
{|r|n        var x2 = x * x;|r|n        var x3 = x2 * x;|r|n        var x4 = x3 * x;|r|n        //
approximation by taylor series in x at 0 up to order 4|r|n        return (x4 / 24 + x3 / 6 + x2 / 2 + x);|r|n
}|r|n        return Math.exp(x) - 1;|r|n        };|r|n        }|r|n        }|r|n        if (typeof Math.hypot === "undefined") {|r|n
Math.hypot = function() {|r|n        var y = 0;|r|n        var length = arguments.length;|r|n|r|n        for (var i = 0; i <
length; i++) {|r|n        if (arguments[i] === Infinity || arguments[i] === -Infinity) {|r|n        return Infinity;|r|n
}|r|n        y += arguments[i] * arguments[i];|r|n        }|r|n        return Math.sqrt(y);|r|n        };|r|n        }|r|n        if (typeof
Math.log10 === "undefined") {|r|n        Math.log10 = function(x) {|r|n        return Math.log(x) * Math.LOG10E;|r|n
};|r|n        }|r|n        if (typeof Math.log2 === "undefined") {|r|n        Math.log2 = function(x) {|r|n        return Math.log(x) *
Math.LOG2E;|r|n        };|r|n        }|r|n        if (typeof Math.clz32 === "undefined") {|r|n        Math.clz32 = (function(log, LN2)
{|r|n        return function(x) {|r|n        var asUInt = x >>> 0;|r|n        if (asUInt === 0) {|r|n        return

```







inline operator fun BooleanArray.component4(): Boolean {\n return get(3)\n}\n\n/\*\*\n \* Returns 4th \*element\* from the collection.\n \*/\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component4(): Char {\n return get(3)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the collection.\n \*/\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> Array<out T>.component5(): T {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the collection.\n \*/\n@kotlin.internal.InlineOnly\npublic inline operator fun ByteArray.component5(): Byte {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the collection.\n \*/\n@kotlin.internal.InlineOnly\npublic inline operator fun ShortArray.component5(): Short {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the collection.\n \*/\n@kotlin.internal.InlineOnly\npublic inline operator fun IntArray.component5(): Int {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the collection.\n \*/\n@kotlin.internal.InlineOnly\npublic inline operator fun LongArray.component5(): Long {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the collection.\n \*/\n@kotlin.internal.InlineOnly\npublic inline operator fun FloatArray.component5(): Float {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the collection.\n \*/\n@kotlin.internal.InlineOnly\npublic inline operator fun DoubleArray.component5(): Double {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the collection.\n \*/\n@kotlin.internal.InlineOnly\npublic inline operator fun BooleanArray.component5(): Boolean {\n return get(4)\n}\n\n/\*\*\n \* Returns 5th \*element\* from the collection.\n \*/\n@kotlin.internal.InlineOnly\npublic inline operator fun CharArray.component5(): Char {\n return get(4)\n}\n\n/\*\*\n \* Returns `true` if [element] is found in the array.\n \*/\npublic operator fun <@kotlin.internal.OnlyInputTypes T> Array<out T>.contains(element: T): Boolean {\n return indexOf(element) >= 0\n}\n\n/\*\*\n \* Returns `true` if [element] is found in the array.\n \*/\npublic operator fun ByteArray.contains(element: Byte): Boolean {\n return indexOf(element) >= 0\n}\n\n/\*\*\n \* Returns `true` if [element] is found in the array.\n \*/\npublic operator fun ShortArray.contains(element: Short): Boolean {\n return indexOf(element) >= 0\n}\n\n/\*\*\n \* Returns `true` if [element] is found in the array.\n \*/\npublic operator fun IntArray.contains(element: Int): Boolean {\n return indexOf(element) >= 0\n}\n\n/\*\*\n \* Returns `true` if [element] is found in the array.\n \*/\npublic operator fun LongArray.contains(element: Long): Boolean {\n return indexOf(element) >= 0\n}\n\n/\*\*\n \* Returns `true` if [element] is found in the array.\n \*/\npublic operator fun FloatArray.contains(element: Float): Boolean {\n return indexOf(element) >= 0\n}\n\n/\*\*\n \* Returns `true` if [element] is found in the array.\n \*/\npublic operator fun DoubleArray.contains(element: Double): Boolean {\n return indexOf(element) >= 0\n}\n\n/\*\*\n \* Returns `true` if [element] is found in the array.\n \*/\npublic operator fun BooleanArray.contains(element: Boolean): Boolean {\n return indexOf(element) >= 0\n}\n\n/\*\*\n \* Returns `true` if [element] is found in the array.\n \*/\npublic operator fun CharArray.contains(element: Char): Boolean {\n return indexOf(element) >= 0\n}\n\n/\*\*\n \* Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n \*/\n \* @sample samples.collections.Collections.Elements.elementAt\n \*/\npublic expect fun <T> Array<out T>.elementAt(index: Int): T\n\n/\*\*\n \* Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n \*/\n \* @sample samples.collections.Collections.Elements.elementAt\n \*/\npublic expect fun ByteArray.elementAt(index: Int): Byte\n\n/\*\*\n \* Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n \*/\n \* @sample samples.collections.Collections.Elements.elementAt\n \*/\npublic expect fun ShortArray.elementAt(index: Int): Short\n\n/\*\*\n \* Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n \*/\n \* @sample samples.collections.Collections.Elements.elementAt\n \*/\npublic expect fun IntArray.elementAt(index: Int): Int\n\n/\*\*\n \* Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n \*/\n \* @sample samples.collections.Collections.Elements.elementAt\n \*/\npublic expect fun LongArray.elementAt(index: Int): Long\n\n/\*\*\n \* Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n \*/\n \* @sample samples.collections.Collections.Elements.elementAt\n \*/\npublic expect fun FloatArray.elementAt(index: Int): Float\n\n/\*\*\n \* Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n \*/\n \* @sample samples.collections.Collections.Elements.elementAt\n \*/\npublic expect fun DoubleArray.elementAt(index: Int):

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Double\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the
[index] is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
*/\npublic expect fun BooleanArray.elementAt(index: Int): Boolean\n\n/**\n * Returns an element at the given
[index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n */\npublic expect fun CharArray.elementAt(index: Int):
Char\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the
[index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Array<out T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Byte): Byte {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Short): Short {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Int): Int {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Long): Long {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Float): Float {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Double): Double {\n    return if (index >= 0 &&
index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the
result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Boolean): Boolean {\n    return if (index >= 0 &&
index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the
result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.elementAtOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the
[index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Array<out T>.elementAtOrNull(index: Int): T? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns an
element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.elementAtOrNull(index: Int): Byte? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns an element

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at the given [index] or `null` if the [index] is out of bounds of this array.\n \* \n \* @sample

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samples.collections.Collections.Elements.elementAtOrNull\n *^\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.elementAtOrNull(index: Int): Short? {\n  return this.getOrNull(index)\n}\n\n/**\n * Returns an element
at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n *^\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.elementAtOrNull(index: Int): Int? {\n  return this.getOrNull(index)\n}\n\n/**\n * Returns an element at
the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n *^\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.elementAtOrNull(index: Int): Long? {\n  return this.getOrNull(index)\n}\n\n/**\n * Returns an element
at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n *^\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.elementAtOrNull(index: Int): Float? {\n  return this.getOrNull(index)\n}\n\n/**\n * Returns an element
at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n *^\n@kotlin.internal.InlineOnly\npublic inline fun
DoubleArray.elementAtOrNull(index: Int): Double? {\n  return this.getOrNull(index)\n}\n\n/**\n * Returns an
element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n *^\n@kotlin.internal.InlineOnly\npublic inline fun
BooleanArray.elementAtOrNull(index: Int): Boolean? {\n  return this.getOrNull(index)\n}\n\n/**\n * Returns an
element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n *^\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.elementAtOrNull(index: Int): Char? {\n  return this.getOrNull(index)\n}\n\n/**\n * Returns the first
element matching the given [predicate], or `null` if no such element was found.\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.find(predicate: (T) -> Boolean): T? {\n
return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no
such element was found.\n
*\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.find(predicate: (Byte) ->
Boolean): Byte? {\n  return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given
[predicate], or `null` if no such element was found.\n
*\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.find(predicate: (Short) -> Boolean): Short? {\n  return firstOrNull(predicate)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n
*\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.find(predicate: (Int) -> Boolean): Int? {\n  return
firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no such
element was found.\n
*\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.find(predicate: (Long) ->
Boolean): Long? {\n  return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given
[predicate], or `null` if no such element was found.\n
*\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.find(predicate: (Float) -> Boolean): Float? {\n  return firstOrNull(predicate)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n
*\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.find(predicate: (Double) -> Boolean): Double? {\n
return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if no
such element was found.\n
*\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.find(predicate:
(Boolean) -> Boolean): Boolean? {\n  return firstOrNull(predicate)\n}\n\n/**\n * Returns the first element
matching the given [predicate], or `null` if no such element was found.\n
*\n@kotlin.internal.InlineOnly\npublic
inline fun CharArray.find(predicate: (Char) -> Boolean): Char? {\n  return firstOrNull(predicate)\n}\n\n/**\n *
Returns the last element matching the given [predicate], or `null` if no such element was found.\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.findLast(predicate: (T) -> Boolean): T? {\n
return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no
such element was found.\n
*\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.findLast(predicate: (Byte) -
> Boolean): Byte? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n
*\n@kotlin.internal.InlineOnly\npublic inline fun

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ShortArray.findLast(predicate: (Short) -> Boolean): Short? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.findLast(predicate: (Int) -> Boolean): Int? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.findLast(predicate: (Long) -> Boolean): Long? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.findLast(predicate: (Float) -> Boolean): Float? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.findLast(predicate: (Double) -> Boolean): Double? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.findLast(predicate: (Boolean) -> Boolean): Boolean? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.findLast(predicate: (Char) -> Boolean): Char? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun <T> Array<out T>.first(): T {\n  if (isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun ByteArray.first(): Byte {\n  if (isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun ShortArray.first(): Short {\n  if (isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun IntArray.first(): Int {\n  if (isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun LongArray.first(): Long {\n  if (isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun FloatArray.first(): Float {\n  if (isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun DoubleArray.first(): Double {\n  if (isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun BooleanArray.first(): Boolean {\n  if (isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return this[0]\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun CharArray.first(): Char {\n  if (isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return this[0]\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun <T> Array<out T>.first(predicate: (T) -> Boolean): T {\n  for (element in this) if (predicate(element)) return element\n  throw NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun ByteArray.first(predicate: (Byte) -> Boolean): Byte {\n  for (element in this) if (predicate(element)) return element\n  throw NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun ShortArray.first(predicate: (Short) -> Boolean): Short {\n  for (element in this) if (predicate(element)) return element\n  throw NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\npublic inline fun IntArray.first(predicate: (Int) -> Boolean): Int {\n  for (element in this) if (predicate(element)) return element\n  throw NoSuchElementException("Array contains no element matching the

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predicate.\n}\n\n/\*\*\n \* Returns the first element matching the given [predicate].\n \* @throws  
 [NoSuchElementException] if no such element is found.\n \*/\npublic inline fun LongArray.first(predicate: (Long) -> Boolean): Long {\n for (element in this) if (predicate(element)) return element\n throw  
 NoSuchElementException("Array contains no element matching the predicate.\n")\n}\n\n/\*\*\n \* Returns the first  
 element matching the given [predicate].\n \* @throws [NoSuchElementException] if no such element is found.\n  
 \*/\npublic inline fun FloatArray.first(predicate: (Float) -> Boolean): Float {\n for (element in this) if  
 (predicate(element)) return element\n throw NoSuchElementException("Array contains no element matching the  
 predicate.\n")\n}\n\n/\*\*\n \* Returns the first element matching the given [predicate].\n \* @throws  
 [NoSuchElementException] if no such element is found.\n \*/\npublic inline fun DoubleArray.first(predicate:  
 (Double) -> Boolean): Double {\n for (element in this) if (predicate(element)) return element\n throw  
 NoSuchElementException("Array contains no element matching the predicate.\n")\n}\n\n/\*\*\n \* Returns the first  
 element matching the given [predicate].\n \* @throws [NoSuchElementException] if no such element is found.\n  
 \*/\npublic inline fun BooleanArray.first(predicate: (Boolean) -> Boolean): Boolean {\n for (element in this) if  
 (predicate(element)) return element\n throw NoSuchElementException("Array contains no element matching the  
 predicate.\n")\n}\n\n/\*\*\n \* Returns the first element matching the given [predicate].\n \* @throws  
 [NoSuchElementException] if no such element is found.\n \*/\npublic inline fun CharArray.first(predicate: (Char) ->  
 Boolean): Char {\n for (element in this) if (predicate(element)) return element\n throw  
 NoSuchElementException("Array contains no element matching the predicate.\n")\n}\n\n/\*\*\n \* Returns the first  
 element, or `null` if the array is empty.\n \*/\npublic fun <T> Array<out T>.firstOrNull(): T? {\n return if  
 (isEmpty()) null else this[0]\n}\n\n/\*\*\n \* Returns the first element, or `null` if the array is empty.\n \*/\npublic fun  
 ByteArray.firstOrNull(): Byte? {\n return if (isEmpty()) null else this[0]\n}\n\n/\*\*\n \* Returns the first element, or  
 `null` if the array is empty.\n \*/\npublic fun ShortArray.firstOrNull(): Short? {\n return if (isEmpty()) null else  
 this[0]\n}\n\n/\*\*\n \* Returns the first element, or `null` if the array is empty.\n \*/\npublic fun IntArray.firstOrNull():  
 Int? {\n return if (isEmpty()) null else this[0]\n}\n\n/\*\*\n \* Returns the first element, or `null` if the array is  
 empty.\n \*/\npublic fun LongArray.firstOrNull(): Long? {\n return if (isEmpty()) null else this[0]\n}\n\n/\*\*\n \*  
 Returns the first element, or `null` if the array is empty.\n \*/\npublic fun FloatArray.firstOrNull(): Float? {\n  
 return if (isEmpty()) null else this[0]\n}\n\n/\*\*\n \* Returns the first element, or `null` if the array is empty.\n  
 \*/\npublic fun DoubleArray.firstOrNull(): Double? {\n return if (isEmpty()) null else this[0]\n}\n\n/\*\*\n \* Returns  
 the first element, or `null` if the array is empty.\n \*/\npublic fun BooleanArray.firstOrNull(): Boolean? {\n return  
 if (isEmpty()) null else this[0]\n}\n\n/\*\*\n \* Returns the first element, or `null` if the array is empty.\n \*/\npublic fun  
 CharArray.firstOrNull(): Char? {\n return if (isEmpty()) null else this[0]\n}\n\n/\*\*\n \* Returns the first element  
 matching the given [predicate], or `null` if element was not found.\n \*/\npublic inline fun <T> Array<out  
 T>.firstOrNull(predicate: (T) -> Boolean): T? {\n for (element in this) if (predicate(element)) return element\n  
 return null\n}\n\n/\*\*\n \* Returns the first element matching the given [predicate], or `null` if element was not  
 found.\n \*/\npublic inline fun ByteArray.firstOrNull(predicate: (Byte) -> Boolean): Byte? {\n for (element in this)  
 if (predicate(element)) return element\n return null\n}\n\n/\*\*\n \* Returns the first element matching the given  
 [predicate], or `null` if element was not found.\n \*/\npublic inline fun ShortArray.firstOrNull(predicate: (Short) ->  
 Boolean): Short? {\n for (element in this) if (predicate(element)) return element\n return null\n}\n\n/\*\*\n \*  
 Returns the first element matching the given [predicate], or `null` if element  
 was not found.\n \*/\npublic inline fun IntArray.firstOrNull(predicate: (Int) -> Boolean): Int? {\n for (element in  
 this) if (predicate(element)) return  
 element\n return null\n}\n\n/\*\*\n \* Returns the first element matching the given [predicate], or `null` if element  
 was not found.\n \*/\npublic inline fun LongArray.firstOrNull(predicate: (Long) -> Boolean): Long? {\n for  
 (element in this) if (predicate(element)) return element\n return null\n}\n\n/\*\*\n \* Returns the first element  
 matching the given [predicate], or `null` if element was not found.\n \*/\npublic inline fun  
 FloatArray.firstOrNull(predicate: (Float) -> Boolean): Float? {\n for (element in this) if (predicate(element))  
 return element\n return null\n}\n\n/\*\*\n \* Returns the first element matching the given [predicate], or `null` if  
 element was not found.\n \*/\npublic inline fun DoubleArray.firstOrNull(predicate: (Double) -> Boolean): Double?  
 {\n for (element in this) if (predicate(element)) return element\n return null\n}\n\n/\*\*\n \* Returns the first

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element matching the given [predicate], or `null` if element was not found.\n */\npublic inline fun
BooleanArray.firstOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n    for (element in this) if
(predicate(element)) return element\n    return null\n}\n\n/**\n * Returns the first element matching the given
[predicate], or `null` if element was not found.\n */\npublic inline fun CharArray.firstOrNull(predicate: (Char) ->
Boolean): Char? {\n    for (element in this) if (predicate(element)) return element\n    return null\n}\n\n/**\n *
Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of
bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.getOrNull(index: Int,
defaultValue: (Int) -> T): T? {\n    return if (index >= 0 && index <= lastIndex) get(index) else
defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue]
function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.getOrNull(index: Int, defaultValue: (Int) -> Byte): Byte? {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.getOrNull(index: Int, defaultValue: (Int) -> Short):
Short? {\n    return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns
an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of
this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.getOrNull(index: Int, defaultValue: (Int) ->
Int): Int? {\n    return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n *
Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of
bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.getOrNull(index: Int,
defaultValue: (Int) -> Long): Long? {\n    return if (index >= 0 && index <= lastIndex) get(index) else
defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue]
function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.getOrNull(index: Int, defaultValue: (Int) -> Float): Float? {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n\n
*/\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.getOrNull(index: Int, defaultValue: (Int) ->
Double): Double? {\n    return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n *
Returns an element at the given [index] or the result of calling the [defaultValue] function if the [index] is out of
bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.getOrNull(index: Int,
defaultValue: (Int) -> Boolean): Boolean? {\n    return if (index >= 0 && index <= lastIndex) get(index) else
defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue]
function if the [index] is out of bounds of this array.\n */\n@kotlin.internal.InlineOnly\npublic inline fun
CharArray.getOrNull(index: Int, defaultValue: (Int) -> Char): Char? {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the
[index] is out of bounds of this array.\n */\npublic fun <T> Array<out T>.getOrNull(index: Int): T? {\n    return if
(index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given [index] or
`null` if the [index] is out of bounds of this array.\n */\npublic fun ByteArray.getOrNull(index: Int): Byte? {\n
return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the given
[index] or `null` if the [index] is out of bounds of this array.\n */\npublic fun ShortArray.getOrNull(index: Int):
Short? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at
the given [index] or `null` if the [index] is out of bounds of this array.\n */\npublic fun IntArray.getOrNull(index:
Int): Int? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element
at the given [index] or `null` if the [index] is out of bounds of this array.\n */\npublic fun LongArray.getOrNull(index:
Int): Long? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element
at the given [index] or `null` if the [index] is out of bounds of this array.\n */\npublic fun
FloatArray.getOrNull(index: Int): Float? {\n    return if (index >= 0 && index <= lastIndex) get(index) else
null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n

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*^/npublic fun DoubleArray.getOrNull(index: Int): Double? {^/n    return if (index >= 0 && index <= lastIndex)
get(index) else null^n}^/n/n/**^/n * Returns an element at the given [index] or `null` if the [index] is out of bounds of
this array.^/n *^/npublic fun BooleanArray.getOrNull(index: Int): Boolean? {^/n    return if (index >= 0 && index <=
lastIndex) get(index) else null^n}^/n/n/**^/n * Returns an element at the given [index] or `null` if the [index] is out of
bounds of this array.^/n *^/npublic fun CharArray.getOrNull(index: Int): Char? {^/n    return if (index >= 0 && index
<= lastIndex) get(index) else null^n}^/n/n/**^/n * Returns first index of [element], or -1 if the array does not contain
element.^/n *^/npublic fun <@kotlin.internal.OnlyInputTypes T> Array<out T>.indexOf(element: T): Int {^/n    if
(element == null) {^/n        for (index in indices) {^/n            if (this[index] == null) {^/n                return index^n
}^/n        }^/n    } else {^/n        for (index in indices) {^/n            if (element == this[index]) {^/n                return index^n
}^/n        }^/n    }^/n    return -1^n}^/n/n/**^/n * Returns first index of [element], or -1 if the array does not contain
element.^/n *^/npublic fun ByteArray.indexOf(element: Byte): Int {^/n    for (index in indices) {^/n        if (element ==
this[index]) {^/n            return index^n        }^/n    }^/n    return -1^n}^/n/n/**^/n * Returns first index of [element], or -1
if the array does not contain element.^/n *^/npublic fun ShortArray.indexOf(element: Short): Int {^/n    for (index in
indices) {^/n        if (element == this[index]) {^/n            return index^n        }^/n    }^/n    return -1^n}^/n/n/**^/n * Returns
first index of [element], or -1 if the array does not contain element.^/n *^/npublic fun IntArray.indexOf(element: Int):
Int {^/n    for (index in indices) {^/n        if (element == this[index]) {^/n            return index^n        }^/n    }^/n
    return -1^n}^/n/n/**^/n * Returns first index of [element], or -1 if the array does not contain element.^/n *^/npublic fun
LongArray.indexOf(element: Long): Int {^/n    for (index in indices) {^/n        if (element == this[index]) {^/n
    return index^n        }^/n    }^/n    return -1^n}^/n/n/**^/n * Returns first index of [element], or -1 if the array does not
contain element.^/n *^/npublic fun FloatArray.indexOf(element: Float): Int {^/n    for (index in indices) {^/n        if
(element == this[index]) {^/n            return index^n        }^/n    }^/n    return -1^n}^/n/n/**^/n * Returns first index of
[element], or -1 if the array does not contain element.^/n *^/npublic fun DoubleArray.indexOf(element: Double): Int
{^/n    for (index in indices) {^/n        if (element == this[index]) {^/n            return index^n        }^/n    }^/n
    return -1^n}^/n/n/**^/n * Returns first index of [element], or -1 if the array does not contain element.^/n *^/npublic fun
BooleanArray.indexOf(element: Boolean): Int {^/n    for (index in indices) {^/n        if (element == this[index]) {^/n
    return index^n        }^/n    }^/n    return -1^n}^/n/n/**^/n * Returns first index of [element], or -1 if the array does not
contain element.^/n *^/npublic fun CharArray.indexOf(element: Char): Int {^/n    for (index in indices) {^/n        if
(element == this[index]) {^/n            return index^n        }^/n    }^/n    return -1^n}^/n/n/**^/n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.^/n *^/npublic inline fun <T>
Array<out T>.indexOfFirst(predicate: (T) -> Boolean): Int {^/n    for (index in indices) {^/n        if
(predicate(this[index])) {^/n            return index^n        }^/n    }^/n    return -1^n}^/n/n/**^/n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.^/n *^/npublic inline fun
ByteArray.indexOfFirst(predicate: (Byte) -> Boolean): Int {^/n    for (index in indices) {^/n        if
(predicate(this[index])) {^/n            return index^n        }^/n    }^/n    return -1^n}^/n/n/**^/n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.^/n *^/npublic inline fun
ShortArray.indexOfFirst(predicate: (Short) -> Boolean): Int {^/n    for (index in indices) {^/n        if
(predicate(this[index])) {^/n            return index^n        }^/n    }^/n    return -1^n}^/n/n/**^/n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.^/n *^/npublic inline fun
IntArray.indexOfFirst(predicate: (Int) -> Boolean): Int {^/n    for (index in indices) {^/n        if (predicate(this[index]))
{^/n            return index^n        }^/n    }^/n    return -1^n}^/n/n/**^/n * Returns index of the first element matching the
given [predicate], or -1 if the array does not contain such element.^/n *^/npublic inline fun
LongArray.indexOfFirst(predicate: (Long) -> Boolean): Int {^/n    for (index in indices) {^/n        if
(predicate(this[index])) {^/n            return index^n        }^/n    }^/n    return -1^n}^/n/n/**^/n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.^/n *^/npublic inline fun
FloatArray.indexOfFirst(predicate: (Float) -> Boolean): Int {^/n    for (index in indices) {^/n        if
(predicate(this[index])) {^/n            return index^n        }^/n    }^/n    return -1^n}^/n/n/**^/n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.^/n *^/npublic inline fun
DoubleArray.indexOfFirst(predicate: (Double) -> Boolean): Int {^/n    for (index in indices) {^/n        if

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(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun
BooleanArray.indexOfFirst(predicate: (Boolean) -> Boolean): Int {\n  for (index in indices) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the first
element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun
CharArray.indexOfFirst(predicate: (Char) -> Boolean): Int {\n  for (index in indices) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last
element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun <T>
Array<out T>.indexOfLast(predicate: (T) -> Boolean): Int {\n  for (index in indices.reversed()) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last
element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun
ByteArray.indexOfLast(predicate: (Byte) -> Boolean): Int {\n  for (index in indices.reversed()) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last
element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun
ShortArray.indexOfLast(predicate: (Short) -> Boolean): Int {\n  for (index in indices.reversed()) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last
element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun
IntArray.indexOfLast(predicate: (Int) -> Boolean): Int {\n  for (index in indices.reversed()) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last
element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun
LongArray.indexOfLast(predicate: (Long) -> Boolean): Int {\n  for (index in indices.reversed()) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last
element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun
FloatArray.indexOfLast(predicate: (Float) -> Boolean): Int {\n  for (index in indices.reversed()) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last
element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun
DoubleArray.indexOfLast(predicate: (Double) -> Boolean): Int {\n  for (index in indices.reversed()) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last
element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun
BooleanArray.indexOfLast(predicate: (Boolean) -> Boolean): Int {\n  for (index in indices.reversed()) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns index of the last
element matching the given [predicate], or -1 if the array does not contain such element.\n */\npublic inline fun
CharArray.indexOfLast(predicate: (Char) -> Boolean): Int {\n  for (index in indices.reversed()) {\n    if
(predicate(this[index])) {\n      return index\n    }\n  }\n  return -1\n}\n\n/**\n * Returns the last element.\n */
@throws [NoSuchElementException] if the array is empty.\n */\npublic fun <T> Array<out T>.last(): T {\n  if
(isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return this[lastIndex]\n}\n\n/**\n *
Returns the last element.\n */\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun
ByteArray.last(): Byte {\n  if (isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return
this[lastIndex]\n}\n\n/**\n * Returns the last element.\n */\n * @throws [NoSuchElementException] if the array is
empty.\n */\npublic fun ShortArray.last(): Short {\n  if (isEmpty())\n    throw NoSuchElementException("Array
is empty.")\n  return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n */\n * @throws
[NoSuchElementException] if the array is empty.\n */\npublic fun IntArray.last(): Int {\n  if (isEmpty())\n
throw NoSuchElementException("Array is empty.")\n  return this[lastIndex]\n}\n\n/**\n * Returns the last
element.\n */\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun LongArray.last(): Long {\n
if (isEmpty())\n  throw NoSuchElementException("Array is empty.")\n  return this[lastIndex]\n}\n\n/**\n *
Returns the last element.\n */\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun
FloatArray.last(): Float {\n  if (isEmpty())\n    throw NoSuchElementException("Array is empty.")\n  return
this[lastIndex]\n}\n\n/**\n * Returns the last element.\n */\n * @throws [NoSuchElementException] if the array is

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empty.\n */\npublic fun DoubleArray.last(): Double {\n    if (isEmpty())\n        throw
NoSuchElementException("\nArray is empty.\n")\n    return this[lastIndex]\n}\n\n/**\n * Returns the last element.\n *
@throws [NoSuchElementException] if the array is empty.\n */\npublic fun BooleanArray.last(): Boolean {\n    if
(isEmpty())\n        throw NoSuchElementException("\nArray is empty.\n")\n    return this[lastIndex]\n}\n\n/**\n *
Returns the last element.\n * @throws [NoSuchElementException] if the array is empty.\n */\npublic fun
CharArray.last(): Char {\n    if (isEmpty())\n        throw NoSuchElementException("\nArray is empty.\n")\n    return
this[lastIndex]\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n */\npublic inline fun <T> Array<out T>.last(predicate:
(T) -> Boolean): T {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    throw NoSuchElementException("\nArray contains no element
matching the predicate.\n")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n */\npublic inline fun ByteArray.last(predicate: (Byte) ->
Boolean): Byte {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    throw NoSuchElementException("\nArray contains no element
matching the predicate.\n")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n */\npublic inline fun ShortArray.last(predicate: (Short) ->
Boolean): Short {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    throw NoSuchElementException("\nArray contains no element
matching the predicate.\n")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n */\npublic inline fun IntArray.last(predicate: (Int) ->
Boolean): Int {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    throw NoSuchElementException("\nArray contains no element
matching the predicate.\n")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n */\npublic inline fun LongArray.last(predicate: (Long) ->
Boolean): Long {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    throw NoSuchElementException("\nArray contains no element
matching the predicate.\n")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n */\npublic inline fun FloatArray.last(predicate: (Float) ->
Boolean): Float {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    throw NoSuchElementException("\nArray contains no element
matching the predicate.\n")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n */\npublic inline fun DoubleArray.last(predicate:
(Double) -> Boolean): Double {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    throw NoSuchElementException("\nArray contains no element
matching the predicate.\n")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n */\npublic inline fun BooleanArray.last(predicate:
(Boolean) -> Boolean): Boolean {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    throw NoSuchElementException("\nArray contains no element
matching the predicate.\n")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n * @throws
[NoSuchElementException] if no such element is found.\n */\npublic inline fun CharArray.last(predicate: (Char) ->
Boolean): Char {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if
(predicate(element)) return element\n    }\n    throw NoSuchElementException("\nArray contains no element
matching the predicate.\n")\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain
element.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T> Array<out T>.lastIndexOf(element: T): Int {\n    if
(element == null) {\n        for (index in indices.reversed()) {\n            if (this[index] == null) {\n                return
index\n            }\n        }\n    } else {\n        for (index in indices.reversed()) {\n            if (element == this[index]) {\n                return index\n            }\n        }\n    }\n    return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the
array does not contain element.\n */\npublic fun ByteArray.lastIndexOf(element: Byte): Int {\n    for (index in

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indices.reversed()) {\n    if (element == this[index]) {\n        return index\n    }\n    return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun
ShortArray.lastIndexOf(element: Short): Int {\n    for (index in indices.reversed()) {\n        if (element ==
this[index]) {\n            return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns last index of [element], or -1 if
the array does not contain element.\n */\npublic fun IntArray.lastIndexOf(element: Int): Int {\n    for (index in
indices.reversed()) {\n        if (element == this[index]) {\n            return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun
LongArray.lastIndexOf(element: Long): Int {\n    for (index in indices.reversed()) {\n        if (element ==
this[index]) {\n            return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns last index of [element], or -1 if
the array does not contain element.\n */\npublic fun FloatArray.lastIndexOf(element: Float): Int {\n    for (index in
indices.reversed()) {\n        if (element == this[index]) {\n            return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun
DoubleArray.lastIndexOf(element: Double): Int {\n    for (index in indices.reversed()) {\n        if (element ==
this[index]) {\n            return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns last index of [element], or -1 if
the array does not contain element.\n */\npublic fun BooleanArray.lastIndexOf(element: Boolean): Int {\n    for
(index in indices.reversed()) {\n        if (element == this[index]) {\n            return index\n        }\n    }\n    return -
1\n}\n\n/**\n * Returns last index of [element], or -1 if the array does not contain element.\n */\npublic fun
CharArray.lastIndexOf(element: Char): Int {\n    for (index in indices.reversed()) {\n        if (element == this[index])
{\n            return index\n        }\n    }\n    return -1\n}\n\n/**\n * Returns the last element, or `null` if the array is
empty.\n */\npublic fun <T> Array<out T>.lastOrNull(): T? {\n    return if (isEmpty()) null else this[size -
1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n */\npublic fun ByteArray.lastOrNull():
Byte? {\n    return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is
empty.\n */\npublic fun ShortArray.lastOrNull(): Short? {\n    return if (isEmpty()) null else this[size -
1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n */\npublic fun IntArray.lastOrNull(): Int?
{\n    return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is
empty.\n */\npublic fun LongArray.lastOrNull(): Long? {\n    return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n */\npublic fun FloatArray.lastOrNull(): Float? {\n
return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n
*/\npublic fun DoubleArray.lastOrNull(): Double? {\n    return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n */\npublic fun BooleanArray.lastOrNull(): Boolean? {\n
return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n
*/\npublic fun CharArray.lastOrNull(): Char? {\n    return if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns
the last element matching the given [predicate], or `null` if no such element was found.\n */\npublic inline fun <T>
Array<out T>.lastOrNull(predicate: (T) -> Boolean): T? {\n    for (index in this.indices.reversed()) {\n        val
element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the last
element matching the given [predicate], or `null` if no such element was found.\n */\npublic inline fun
ByteArray.lastOrNull(predicate: (Byte) -> Boolean): Byte? {\n    for (index in this.indices.reversed()) {\n        val
element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the last
element matching the given [predicate], or `null` if no such element was found.\n */\npublic inline fun
ShortArray.lastOrNull(predicate: (Short) -> Boolean): Short? {\n    for (index in this.indices.reversed()) {\n        val
element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the last
element matching the given [predicate], or `null` if no such element was found.\n */\npublic inline fun
IntArray.lastOrNull(predicate: (Int) -> Boolean): Int? {\n    for (index in this.indices.reversed()) {\n        val element
= this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the last element
matching the given [predicate], or `null` if no such element was found.\n */\npublic inline fun
LongArray.lastOrNull(predicate: (Long) -> Boolean): Long? {\n    for (index in this.indices.reversed()) {\n        val
element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the last
element matching the given [predicate], or `null` if no such element was found.\n */\npublic inline fun

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FloatArray.lastOrNull(predicate: (Float) -> Boolean): Float? {\n    for (index in this.indices.reversed()) {\n        val
element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the last
element matching the given [predicate], or `null` if no such element was found.\n */\npublic inline fun
DoubleArray.lastOrNull(predicate: (Double) -> Boolean): Double? {\n    for (index in this.indices.reversed()) {\n
val element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the
last element matching the given [predicate], or `null` if no such element was found.\n */\npublic inline fun
BooleanArray.lastOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n    for (index in this.indices.reversed()) {\n
val element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns
the last element matching the given [predicate], or `null` if no such element was found.\n */\npublic inline fun
CharArray.lastOrNull(predicate: (Char) -> Boolean): Char? {\n    for (index in this.indices.reversed()) {\n    val
element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns a
random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n*
\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.random(): T {\n    return
random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws
NoSuchElementException if this array is empty.\n */\n\n*
\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.random(): Byte {\n    return
random(Random)\n}\n\n/**\n * Returns a random element from
this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n*
\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.random(): Short {\n    return
random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws
NoSuchElementException if this array is empty.\n */\n\n*
\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.random(): Int {\n    return
random(Random)\n}\n\n/**\n * Returns a random element from this
array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n*
\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.random(): Long {\n    return
random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws
NoSuchElementException if this array is empty.\n */\n\n*
\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.random(): Float {\n    return
random(Random)\n}\n\n/**\n * Returns a random element from
this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n*
\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.random(): Double {\n    return
random(Random)\n}\n\n/**\n * Returns a random element from this array.\n * \n * @throws
NoSuchElementException if this array is empty.\n */\n\n*
\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.random(): Boolean {\n    return
random(Random)\n}\n\n/**\n * Returns a random element
from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n*
\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.random(): Char {\n    return
random(Random)\n}\n\n/**\n * Returns a random element from this array using the specified source of
randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n*
\n@SinceKotlin("1.3")\n\npublic
fun <T> Array<out T>.random(random: Random): T {\n    if (isEmpty())\n        throw
NoSuchElementException("Array is empty.")\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random
element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if
this array is empty.\n */\n\n*
\n@SinceKotlin("1.3")\n\npublic fun ByteArray.random(random: Random): Byte {\n    if
(isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of
randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n\n*
\n@SinceKotlin("1.3")\n\npublic fun ShortArray.random(random: Random): Short {\n    if (isEmpty())\n        throw
NoSuchElementException("Array is empty.")\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random
element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if
this array is empty.\n */\n\n*
\n@SinceKotlin("1.3")\n\npublic fun IntArray.random(random: Random): Int {\n    if
(isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of

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randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin("1.3")\npublic
fun LongArray.random(random: Random): Long {\n    if (isEmpty())\n        throw
NoSuchElementException("Array is empty.")\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random
element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if
this array is empty.\n */\n@SinceKotlin("1.3")\npublic fun FloatArray.random(random: Random): Float {\n    if
(isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of
randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin("1.3")\npublic
fun DoubleArray.random(random: Random): Double {\n    if (isEmpty())\n        throw
NoSuchElementException("Array is empty.")\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns a random
element from this array using the specified source of randomness.\n * \n * @throws NoSuchElementException if
this array is empty.\n */\n@SinceKotlin("1.3")\npublic fun BooleanArray.random(random: Random): Boolean {\n
    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of
randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n */\n@SinceKotlin("1.3")\npublic
fun CharArray.random(random: Random): Char {\n    if (isEmpty())\n        throw NoSuchElementException("Array
is empty.")\n    return get(random.nextInt(size))\n}\n\n/**\n * Returns the single element, or throws an exception if
the array is empty or has more than one element.\n */\n@public fun <T> Array<out T>.single(): T {\n    return when
(size) {\n        0 -> throw NoSuchElementException("Array is empty.")\n        1 -> this[0]\n        else -> throw
IllegalArgumentException("Array has more than one element.")\n    }\n}\n\n/**\n * Returns the single element, or
throws an exception if the array is empty or has more than one element.\n */\n@public fun ByteArray.single(): Byte
{\n    return when (size) {\n        0 -> throw NoSuchElementException("Array is empty.")\n        1 -> this[0]\n
        else -> throw IllegalArgumentException("Array has more than one element.")\n    }\n}\n\n/**\n * Returns the
single element, or throws an exception if the array is empty or has more than one element.\n */\n@public fun
ShortArray.single(): Short {\n    return when (size) {\n        0 -> throw NoSuchElementException("Array is
empty.")\n        1 -> this[0]\n        else -> throw IllegalArgumentException("Array has more than one element.")\n
    }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one
element.\n */\n@public fun IntArray.single(): Int {\n    return when (size) {\n        0 -> throw
NoSuchElementException("Array is empty.")\n        1 -> this[0]\n        else -> throw
IllegalArgumentException("Array has more than one element.")\n    }\n}\n\n/**\n * Returns the single element, or
throws an exception if the array is empty or has more than one element.\n */\n@public fun LongArray.single(): Long
{\n    return when (size) {\n        0 -> throw NoSuchElementException("Array is empty.")\n        1 -> this[0]\n
        else -> throw IllegalArgumentException("Array has more than one element.")\n    }\n}\n\n/**\n * Returns the
single element, or throws an exception if the array is empty or has more than one element.\n */\n@public fun
FloatArray.single(): Float {\n    return when (size) {\n        0 -> throw NoSuchElementException("Array is
empty.")\n        1 -> this[0]\n        else -> throw IllegalArgumentException("Array has more than one element.")\n
    }\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or has more than one
element.\n */\n@public fun DoubleArray.single(): Double {\n    return when (size) {\n        0 -> throw
NoSuchElementException("Array is empty.")\n        1 -> this[0]\n        else -> throw
IllegalArgumentException("Array has more than one element.")\n    }\n}\n\n/**\n * Returns the single element, or
throws an exception if the array is empty or has more than one element.\n */\n@public fun BooleanArray.single():
Boolean {\n    return when (size) {\n        0 -> throw NoSuchElementException("Array is empty.")\n        1 ->
this[0]\n        else -> throw IllegalArgumentException("Array has more than one element.")\n    }\n}\n\n/**\n *
Returns the single element, or throws an exception if the array is empty or has more than one element.\n */\n@public
fun CharArray.single(): Char {\n    return when (size) {\n        0 -> throw NoSuchElementException("Array is
empty.")\n        1 -> this[0]\n        else -> throw IllegalArgumentException("Array has more than one element.")\n
    }\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no or
more than one matching element.\n */\n@public inline fun <T> Array<out T>.single(predicate: (T) -> Boolean): T {\n

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var single: T? = null\n  var found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if
(found) throw IllegalArgumentException("Array contains more than one matching element.")\n      single =
element\n      found = true\n    }\n  }\n  if (!found) throw NoSuchElementException("Array contains no
element matching the predicate.")\n  @Suppress("UNCHECKED_CAST")\n  return single as T\n}\n\n/**\n *
Returns the single element matching the given [predicate], or throws exception if there is no or more than one
matching element.\n */\npublic inline fun ByteArray.single(predicate: (Byte) -> Boolean): Byte {\n  var single:
Byte? = null\n  var found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if (found) throw
IllegalArgumentException("Array contains more than one matching element.")\n      single = element\n
found = true\n    }\n  }\n  if (!found) throw NoSuchElementException("Array contains no element matching
the predicate.")\n  @Suppress("UNCHECKED_CAST")\n  return single as Byte\n}\n\n/**\n * Returns the
single element matching the given [predicate], or throws exception if there is no or more than one matching
element.\n */\npublic inline fun ShortArray.single(predicate: (Short) -> Boolean): Short {\n  var single: Short? =
null\n  var found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if (found) throw
IllegalArgumentException("Array contains more than one matching element.")\n      single = element\n
found = true\n    }\n  }\n  if (!found) throw NoSuchElementException("Array contains no element matching
the predicate.")\n  @Suppress("UNCHECKED_CAST")\n  return single as Short\n}\n\n/**\n * Returns the
single element matching the given [predicate], or throws exception if there is no or more than one matching
element.\n */\npublic inline fun IntArray.single(predicate: (Int) -> Boolean): Int {\n  var single: Int? = null\n  var
found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if (found) throw
IllegalArgumentException("Array contains more than one matching element.")\n      single = element\n
found = true\n    }\n  }\n  if (!found) throw NoSuchElementException("Array contains no element matching
the predicate.")\n  @Suppress("UNCHECKED_CAST")\n  return single as Int\n}\n\n/**\n * Returns the single
element matching the given [predicate], or throws exception if there is no or more than one matching element.\n
*/\npublic inline fun LongArray.single(predicate: (Long) -> Boolean): Long {\n  var single: Long? = null\n  var
found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if (found) throw
IllegalArgumentException("Array contains more than one matching element.")\n      single = element\n
found = true\n    }\n  }\n  if (!found) throw NoSuchElementException("Array contains no element matching
the predicate.")\n  @Suppress("UNCHECKED_CAST")\n  return single as Long\n}\n\n/**\n * Returns the
single element matching the given [predicate], or throws exception if there is no or more than one matching
element.\n */\npublic inline fun FloatArray.single(predicate: (Float) -> Boolean): Float {\n  var single: Float? =
null\n  var found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if (found) throw
IllegalArgumentException("Array contains more than one matching element.")\n      single = element\n
found = true\n    }\n  }\n  if (!found) throw NoSuchElementException("Array contains no element matching
the predicate.")\n  @Suppress("UNCHECKED_CAST")\n  return single as Float\n}\n\n/**\n * Returns the
single element matching the given [predicate], or throws exception if there is no or more than one matching
element.\n */\npublic inline fun DoubleArray.single(predicate: (Double) -> Boolean): Double {\n  var single:
Double? = null\n  var found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if (found)
throw IllegalArgumentException("Array contains more than one matching element.")\n      single = element\n
found = true\n    }\n  }\n  if (!found) throw NoSuchElementException("Array contains no element
matching the predicate.")\n  @Suppress("UNCHECKED_CAST")\n  return single as Double\n}\n\n/**\n *
Returns the single element matching the given [predicate], or throws exception if there is no or more than one
matching element.\n */\npublic inline fun BooleanArray.single(predicate: (Boolean) -> Boolean): Boolean {\n  var
single: Boolean? = null\n  var found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if
(found) throw IllegalArgumentException("Array contains more than one matching element.")\n      single =
element\n      found = true\n    }\n  }\n  if (!found) throw NoSuchElementException("Array contains no
element matching the predicate.")\n  @Suppress("UNCHECKED_CAST")\n  return single as
Boolean\n}\n\n/**\n * Returns the single element matching the given [predicate], or throws exception if there is no
or more than one matching element.\n */\npublic inline fun CharArray.single(predicate: (Char) -> Boolean): Char

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{\n  var single: Char? = null\n  var found = false\n  for (element in this) {\n    if (predicate(element)) {\n
if (found) throw IllegalArgumentException("Array contains more than one matching element.")\n      single =
element\n      found = true\n    }\n  }\n  if (!found) throw NoSuchElementException("Array contains no
element matching the predicate.")\n  @Suppress("UNCHECKED_CAST")\n  return single as Char\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic fun <T>
Array<out T>.singleOrNull(): T? {\n  return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or
`null` if the array is empty or has more than one element.\n */\npublic fun ByteArray.singleOrNull(): Byte? {\n
return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more
than one element.\n */\npublic fun ShortArray.singleOrNull(): Short? {\n  return if (size == 1) this[0] else
null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic
fun IntArray.singleOrNull(): Int? {\n  return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or
`null` if the array is empty or has more than one element.\n */\npublic fun LongArray.singleOrNull(): Long? {\n
return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more
than one element.\n */\npublic fun FloatArray.singleOrNull(): Float? {\n  return if (size == 1) this[0] else
null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more than one element.\n */\npublic
fun DoubleArray.singleOrNull(): Double? {\n  return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single
element, or `null` if the array is empty or has more than one element.\n */\npublic fun BooleanArray.singleOrNull():
Boolean? {\n  return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is
empty or has more than one element.\n */\npublic fun CharArray.singleOrNull(): Char? {\n  return if (size == 1)
this[0] else null\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not
found or more than one element was found.\n */\npublic inline fun <T> Array<out T>.singleOrNull(predicate: (T) -
> Boolean): T? {\n  var single: T? = null\n  var found = false\n  for (element in this) {\n    if
(predicate(element)) {\n      if (found) return null\n      single = element\n      found = true\n    }\n  }\n  if
(!found) return null\n  return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or
`null` if element was not found or more than one element was found.\n */\npublic inline fun
ByteArray.singleOrNull(predicate: (Byte) -> Boolean): Byte? {\n  var single: Byte? = null\n  var found = false\n
for (element in this) {\n    if (predicate(element)) {\n      if (found) return null\n      single = element\n
found = true\n    }\n  }\n  if (!found) return null\n  return single\n}\n\n/**\n * Returns the single element
matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic
inline fun ShortArray.singleOrNull(predicate: (Short) -> Boolean): Short? {\n  var single: Short? = null\n  var
found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if (found) return null\n      single
= element\n      found = true\n    }\n  }\n  if (!found) return null\n  return single\n}\n\n/**\n * Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.\n */\npublic inline fun IntArray.singleOrNull(predicate: (Int) -> Boolean): Int? {\n  var single: Int? = null\n
var found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if (found) return null\n
single = element\n      found = true\n    }\n  }\n  if (!found) return null\n  return single\n}\n\n/**\n *
Returns the single element matching the given [predicate], or `null` if element was not found or more than one
element was found.\n */\npublic inline fun LongArray.singleOrNull(predicate: (Long) -> Boolean): Long? {\n  var
single: Long? = null\n  var found = false\n  for (element in this) {\n    if (predicate(element)) {\n      if
(found) return null\n      single = element\n      found = true\n    }\n  }\n  if (!found) return null\n  return
single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element was not found or
more than one element was found.\n */\npublic inline fun FloatArray.singleOrNull(predicate: (Float) -> Boolean):
Float? {\n  var single: Float? = null\n  var found = false\n  for (element in this) {\n    if (predicate(element))
{\n      if (found) return null\n      single = element\n      found = true\n    }\n  }\n  if (!found) return
null\n  return single\n}\n\n/**\n * Returns the single element matching the given [predicate], or `null` if element
was not found or more than one element was found.\n */\npublic inline fun DoubleArray.singleOrNull(predicate:
(Double) -> Boolean): Double? {\n  var single: Double? = null\n  var found = false\n  for (element in this) {\n
if (predicate(element)) {\n      if (found) return null\n      single = element\n      found = true\n    }\n  }\n
}

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}\n if (!found) return null\n return single\n}\n\n/**\n * Returns the single element matching the given
[predicate], or `null` if element was not found or more than one element was found.\n *\npublic inline fun
BooleanArray.singleOrNull(predicate: (Boolean) -> Boolean): Boolean? {\n var single: Boolean? = null\n var
found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) return null\n single
= element\n found = true\n }\n }\n if (!found) return null\n return single\n}\n\n/**\n * Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.\n *\npublic inline fun CharArray.singleOrNull(predicate: (Char) -> Boolean): Char? {\n var single: Char?
= null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) return
null\n single = element\n found = true\n }\n }\n if (!found) return null\n return
single\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n *\n * @throws
IllegalArgumentOutOfRangeException if [n] is negative.\n *\n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun <T> Array<out T>.drop(n: Int): List<T> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n *\n * @throws
IllegalArgumentOutOfRangeException if [n] is negative.\n *\n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun ByteArray.drop(n: Int): List<Byte> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n *\n * @throws
IllegalArgumentOutOfRangeException if [n] is negative.\n *\n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun ShortArray.drop(n: Int): List<Short> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n *\n * @throws
IllegalArgumentOutOfRangeException if [n] is negative.\n *\n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun IntArray.drop(n: Int): List<Int> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n *\n * @throws
IllegalArgumentOutOfRangeException if [n] is negative.\n *\n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun LongArray.drop(n: Int): List<Long> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n *\n * @throws
IllegalArgumentOutOfRangeException if [n] is negative.\n *\n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun FloatArray.drop(n: Int): List<Float> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n *\n * @throws
IllegalArgumentOutOfRangeException if [n] is negative.\n *\n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun DoubleArray.drop(n: Int): List<Double> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n *\n * @throws
IllegalArgumentOutOfRangeException if [n] is negative.\n *\n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun BooleanArray.drop(n: Int): List<Boolean>
{\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n *\n * @throws
IllegalArgumentOutOfRangeException if [n] is negative.\n *\n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun CharArray.drop(n: Int): List<Char> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n *\n * @throws
IllegalArgumentOutOfRangeException if [n] is negative.\n *\n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun <T> Array<out T>.dropLast(n: Int): List<T>

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{\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun ByteArray.dropLast(n: Int): List<Byte> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun ShortArray.dropLast(n: Int): List<Short> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun IntArray.dropLast(n: Int): List<Int> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun LongArray.dropLast(n: Int): List<Long> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun FloatArray.dropLast(n: Int): List<Float> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun DoubleArray.dropLast(n: Int): List<Double>
{\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun BooleanArray.dropLast(n: Int):
List<Boolean> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic fun CharArray.dropLast(n: Int): List<Char> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n *\npublic inline fun <T>
Array<out T>.dropLastWhile(predicate: (T) -> Boolean): List<T> {\n  for (index in lastIndex downTo 0) {\n    if
(!predicate(this[index])) {\n      return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns
a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun ByteArray.dropLastWhile(predicate:
(Byte) -> Boolean): List<Byte> {\n  for (index in lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n
return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns a list containing all elements
except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun ShortArray.dropLastWhile(predicate:
(Short) -> Boolean): List<Short> {\n  for (index in lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n
return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns a list containing all elements
except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun IntArray.dropLastWhile(predicate:
(Int) -> Boolean): List<Int> {\n  for (index in lastIndex downTo 0) {\n    if (!predicate(this[index])) {\n

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return take(index + 1)\n    }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements
except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun LongArray.dropLastWhile(predicate:
(Long) -> Boolean): List<Long> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n
return take(index + 1)\n    }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements
except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun FloatArray.dropLastWhile(predicate:
(Float) -> Boolean): List<Float> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n
return take(index + 1)\n    }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements
except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun DoubleArray.dropLastWhile(predicate:
(Double) -> Boolean): List<Double> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n
return take(index + 1)\n    }\n }\n return emptyList()\n}\n\n/**\n * Returns a list containing all elements
except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun
BooleanArray.dropLastWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n for (index in lastIndex
downTo 0) {\n if (!predicate(this[index])) {\n return take(index + 1)\n    }\n }\n return
emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n *\npublic inline fun
CharArray.dropLastWhile(predicate: (Char) -> Boolean): List<Char> {\n for (index in lastIndex downTo 0) {\n
if (!predicate(this[index])) {\n return take(index + 1)\n    }\n }\n return emptyList()\n}\n\n/**\n *
Returns a list containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun <T> Array<out
T>.dropWhile(predicate: (T) -> Boolean): List<T> {\n var yielding = false\n val list = ArrayList<T>()\n for
(item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n
yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that
satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n *\npublic
inline fun ByteArray.dropWhile(predicate: (Byte) -> Boolean): List<Byte> {\n var yielding = false\n val list =
ArrayList<Byte>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n
list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all
elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun ShortArray.dropWhile(predicate:
(Short) -> Boolean): List<Short> {\n var yielding = false\n val list = ArrayList<Short>()\n for (item in this)\n
if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding =
true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the
given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n *\npublic inline fun
IntArray.dropWhile(predicate: (Int) -> Boolean): List<Int> {\n var yielding = false\n val list =
ArrayList<Int>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n
list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements
except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun LongArray.dropWhile(predicate:
(Long) -> Boolean): List<Long> {\n var yielding = false\n val list = ArrayList<Long>()\n for (item in this)\n
if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n list.add(item)\n yielding =
true\n }\n return list\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the
given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n *\npublic inline fun
FloatArray.dropWhile(predicate: (Float) -> Boolean): List<Float> {\n var yielding = false\n val list =
ArrayList<Float>()\n for (item in this)\n if (yielding)\n list.add(item)\n else if (!predicate(item)) {\n
list.add(item)\n yielding = true\n }\n return list\n}\n\n/**\n * Returns a list containing all

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elements except first elements that satisfy the given [predicate].\n \* \n \* @sample

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samples.collections.Collections.Transformations.drop\n *\npublic inline fun DoubleArray.dropWhile(predicate:
(Double) -> Boolean): List<Double> {\n  var yielding = false\n  val list = ArrayList<Double>()\n  for (item in
this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item)) {\n      list.add(item)\n
yielding = true\n    }\n  return list\n}\n\n/**\n * Returns a list containing all elements except first elements that
satisfy the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n *\npublic
inline fun BooleanArray.dropWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n  var yielding = false\n
val list = ArrayList<Boolean>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if
(!predicate(item)) {\n      list.add(item)\n      yielding = true\n    }\n  return list\n}\n\n/**\n * Returns a list
containing all elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n *\npublic inline fun CharArray.dropWhile(predicate:
(Char) -> Boolean): List<Char> {\n  var yielding = false\n  val list = ArrayList<Char>()\n  for (item in this)\n
if (yielding)\n  list.add(item)\n  else if (!predicate(item)) {\n    list.add(item)\n    yielding =
true\n  }\n  return list\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n
*\npublic inline fun <T> Array<out T>.filter(predicate: (T) -> Boolean): List<T> {\n  return
filterTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n *\npublic inline fun ByteArray.filter(predicate: (Byte) -> Boolean): List<Byte> {\n  return
filterTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n *\npublic inline fun ShortArray.filter(predicate: (Short) -> Boolean): List<Short> {\n  return
filterTo(ArrayList<Short>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n *\npublic inline fun IntArray.filter(predicate: (Int) -> Boolean): List<Int> {\n  return
filterTo(ArrayList<Int>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n *\npublic inline fun LongArray.filter(predicate: (Long) -> Boolean): List<Long> {\n  return
filterTo(ArrayList<Long>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n *\npublic inline fun FloatArray.filter(predicate: (Float) -> Boolean): List<Float> {\n  return
filterTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n *\npublic inline fun DoubleArray.filter(predicate: (Double) -> Boolean): List<Double> {\n  return
filterTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n *\npublic inline fun BooleanArray.filter(predicate: (Boolean) -> Boolean): List<Boolean> {\n
return filterTo(ArrayList<Boolean>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the
given [predicate].\n *\npublic inline fun CharArray.filter(predicate: (Char) -> Boolean): List<Char> {\n  return
filterTo(ArrayList<Char>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given
[predicate].\n * \n * @param [predicate] function that takes the index of an element and the element itself\n * and
returns the result of predicate evaluation on the element.\n *\npublic inline fun <T> Array<out T>.filterIndexed(predicate:
(index: Int, T) -> Boolean): List<T> {\n  return filterIndexedTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a
list containing only elements matching the given [predicate].\n * \n * @param [predicate] function that takes the
index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n
*\npublic inline
fun ByteArray.filterIndexed(predicate: (index: Int, Byte) -> Boolean): List<Byte> {\n  return
filterIndexedTo(ArrayList<Byte>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the
given [predicate].\n * \n * @param [predicate] function that takes the index of an element and the element itself\n
* and returns the result of predicate evaluation on the element.\n *\npublic inline fun ShortArray.filterIndexed(predicate:
(index: Int, Short) -> Boolean): List<Short> {\n  return filterIndexedTo(ArrayList<Short>(), predicate)\n}\n\n/**\n
* Returns a list containing only elements matching the given [predicate].\n * \n * @param [predicate] function that
takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the
element.\n *\npublic inline fun IntArray.filterIndexed(predicate: (index: Int, Int) -> Boolean): List<Int> {\n
return
filterIndexedTo(ArrayList<Int>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the
given [predicate].\n * \n * @param [predicate] function that takes the index of an element and the element itself\n
* and returns the result of predicate evaluation on the element.\n *\npublic inline fun LongArray.filterIndexed(predicate:

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(index: Int, Long) -> Boolean): List<Long> {\n  return filterIndexedTo(ArrayList<Long>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate evaluation on the element.\n */\npublic inline fun FloatArray.filterIndexed(predicate: (index: Int, Float) -> Boolean): List<Float> {\n  return\n  filterIndexedTo(ArrayList<Float>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the\n * given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and\n * returns the result of predicate evaluation on the element.\n */\npublic inline fun\nDoubleArray.filterIndexed(predicate: (index: Int, Double) -> Boolean): List<Double> {\n  return\n  filterIndexedTo(ArrayList<Double>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching the\n * given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and\n * returns the result of predicate evaluation on the element.\n */\npublic inline fun\nBooleanArray.filterIndexed(predicate: (index: Int, Boolean) -> Boolean): List<Boolean> {\n  return\n  filterIndexedTo(ArrayList<Boolean>(), predicate)\n}\n\n/**\n * Returns a list containing only elements matching\n * the given [predicate].\n * @param [predicate] function that takes the index of an element and the element itself\n * and\n * returns the result of predicate evaluation on the element.\n */\npublic inline fun\nCharArray.filterIndexed(predicate: (index: Int, Char) -> Boolean): List<Char> {\n  return\n  filterIndexedTo(ArrayList<Char>(), predicate)\n}\n\n/**\n * Appends all elements matching the given [predicate] to\n * the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and\n * returns the result of predicate evaluation on the element.\n */\npublic inline fun <T, C : MutableCollection<in\nT>> Array<out T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -> Boolean): C {\n  forEachIndexed {\n  index, element ->\n    if (predicate(index, element)) destination.add(element)\n  }\n  return\n  destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and\n * returns the result of\n * predicate evaluation on the element.\n */\npublic inline fun <C : MutableCollection<in Byte>>\nByteArray.filterIndexedTo(destination: C, predicate: (index: Int, Byte) -> Boolean): C {\n  forEachIndexed {\n  index, element ->\n    if (predicate(index, element)) destination.add(element)\n  }\n  return\n  destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and\n * returns the result of\n * predicate evaluation on the element.\n */\npublic inline fun <C : MutableCollection<in Short>>\nShortArray.filterIndexedTo(destination: C, predicate: (index: Int, Short) -> Boolean): C {\n  forEachIndexed {\n  index, element ->\n    if (predicate(index, element)) destination.add(element)\n  }\n  return\n  destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and\n * returns the result of\n * predicate evaluation on the element.\n */\npublic inline fun <C : MutableCollection<in Int>>\nIntArray.filterIndexedTo(destination: C, predicate: (index: Int, Int) -> Boolean): C {\n  forEachIndexed {\n  index,\n  element ->\n    if (predicate(index, element)) destination.add(element)\n  }\n  return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that\n * takes the index of an element and the element itself\n * and\n * returns the result of predicate evaluation on the\n * element.\n */\npublic inline fun <C : MutableCollection<in Long>> LongArray.filterIndexedTo(destination: C,\n  predicate: (index: Int, Long) -> Boolean): C {\n  forEachIndexed {\n  index, element ->\n    if (predicate(index,\n  element)) destination.add(element)\n  }\n  return destination\n}\n\n/**\n * Appends all elements matching the\n * given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and\n * the element itself\n * and\n * returns the result of predicate evaluation on the element.\n */\npublic inline fun <C :\n  MutableCollection<in Float>> FloatArray.filterIndexedTo(destination: C, predicate: (index: Int, Float) -> Boolean):\n  C {\n  forEachIndexed {\n  index, element ->\n    if (predicate(index, element)) destination.add(element)\n  }\n  return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the element itself\n * and\n * returns the result of\n * predicate evaluation on the element.\n */\npublic inline fun <C : MutableCollection<in Double>>

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DoubleArray.filterIndexedTo(destination: C, predicate: (index: Int, Double) -> Boolean): C {
    forEachIndexed { index, element ->
        if (predicate(index, element)) destination.add(element)
    }
    return destination
}
/**
 * Appends all elements matching the given [predicate] to the given [destination].
 * @param [predicate] function that takes the index of an element and the element itself
 * and returns the result of predicate evaluation on the element.
 */
public inline fun <C : MutableCollection<in Boolean>>
BooleanArray.filterIndexedTo(destination: C, predicate: (index: Int, Boolean) -> Boolean): C {
    forEachIndexed { index, element ->
        if (predicate(index, element)) destination.add(element)
    }
    return destination
}
/**
 * Appends all elements matching the given [predicate] to the given [destination].
 * @param [predicate] function that takes the index of an element and the element itself
 * and returns the result of predicate evaluation on the element.
 */
public inline fun <C : MutableCollection<in Char>>
CharArray.filterIndexedTo(destination: C, predicate: (index: Int, Char) -> Boolean): C {
    forEachIndexed { index, element ->
        if (predicate(index, element)) destination.add(element)
    }
    return destination
}
/**
 * Returns a list containing all elements that are instances of specified type parameter R.
 */
public inline fun <reified R> Array<*>.filterIsInstance(): List<@kotlin.internal.NoInfer R> {
    return filterIsInstanceTo(ArrayList<R>())
}
/**
 * Appends all elements that are instances of specified type parameter R to the given [destination].
 */
public inline fun <reified R, C : MutableCollection<in R>>
Array<*>.filterIsInstanceTo(destination: C): C {
    for (element in this) if (element is R)
        destination.add(element)
    return destination
}
/**
 * Returns a list containing all elements not matching the given [predicate].
 */
public inline fun <T> Array<out T>.filterNot(predicate: (T) -> Boolean): List<T> {
    return filterNotTo(ArrayList<T>(), predicate)
}
/**
 * Returns a list containing all elements not matching the given [predicate].
 */
public inline fun ByteArray.filterNot(predicate: (Byte) -> Boolean): List<Byte> {
    return filterNotTo(ArrayList<Byte>(), predicate)
}
/**
 * Returns a list containing all elements not matching the given [predicate].
 */
public inline fun ShortArray.filterNot(predicate: (Short) -> Boolean): List<Short> {
    return filterNotTo(ArrayList<Short>(), predicate)
}
/**
 * Returns a list containing all elements not matching the given [predicate].
 */
public inline fun IntArray.filterNot(predicate: (Int) -> Boolean): List<Int> {
    return filterNotTo(ArrayList<Int>(), predicate)
}
/**
 * Returns a list containing all elements not matching the given [predicate].
 */
public inline fun LongArray.filterNot(predicate: (Long) -> Boolean): List<Long> {
    return filterNotTo(ArrayList<Long>(), predicate)
}
/**
 * Returns a list containing all elements not matching the given [predicate].
 */
public inline fun FloatArray.filterNot(predicate: (Float) -> Boolean): List<Float> {
    return filterNotTo(ArrayList<Float>(), predicate)
}
/**
 * Returns a list containing all elements not matching the given [predicate].
 */
public inline fun DoubleArray.filterNot(predicate: (Double) -> Boolean): List<Double> {
    return filterNotTo(ArrayList<Double>(), predicate)
}
/**
 * Returns a list containing all elements not matching the given [predicate].
 */
public inline fun BooleanArray.filterNot(predicate: (Boolean) -> Boolean): List<Boolean> {
    return filterNotTo(ArrayList<Boolean>(), predicate)
}
/**
 * Returns a list containing all elements not matching the given [predicate].
 */
public inline fun CharArray.filterNot(predicate: (Char) -> Boolean): List<Char> {
    return filterNotTo(ArrayList<Char>(), predicate)
}
/**
 * Returns a list containing all elements that are not `null`.
 */
public fun <T : Any> Array<out T?>.filterNotNull(): List<T> {
    return filterNotNullTo(ArrayList<T>())
}
/**
 * Appends all elements that are not `null` to the given [destination].
 */
public fun <C : MutableCollection<in T>, T : Any> Array<out T?>.filterNotNullTo(destination: C): C {
    for (element in this) if (element != null) destination.add(element)
    return destination
}
/**
 * Appends all elements not matching the given [predicate] to the given [destination].
 */
public inline fun <T, C : MutableCollection<in T>> Array<out T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {
    for (element in this) if (!predicate(element)) destination.add(element)
    return destination
}
/**
 * Appends all elements not matching the given [predicate] to the given [destination].
 */
public inline fun <C : MutableCollection<in Byte>> ByteArray.filterNotTo(destination: C, predicate: (Byte) -> Boolean): C {
    for (element in this) if (!predicate(element)) destination.add(element)
    return destination
}
/**
 * Appends all elements not matching the given [predicate] to the given [destination].
 */
public inline fun <C : MutableCollection<in Short>> ShortArray.filterNotTo(destination: C, predicate: (Short) -> Boolean): C {
    for

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(element in this) if (!predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Appends all
elements not matching the given [predicate] to the given [destination].\n *\npublic inline fun <C :
MutableCollection<in Int>> IntArray.filterNotTo(destination: C, predicate: (Int) -> Boolean): C {\n for (element
in this) if (!predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Appends all elements
not matching the given [predicate] to the given [destination].\n *\npublic inline fun <C : MutableCollection<in
Long>> LongArray.filterNotTo(destination: C, predicate: (Long) -> Boolean): C {\n for (element in this) if
(!predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n *\npublic inline fun <C : MutableCollection<in Float>>
FloatArray.filterNotTo(destination: C, predicate: (Float) -> Boolean): C {\n for (element in this) if
(!predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n *\npublic inline fun <C : MutableCollection<in
Double>> DoubleArray.filterNotTo(destination: C, predicate: (Double) -> Boolean): C {\n for (element in this) if
(!predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n *\npublic inline fun <C : MutableCollection<in
Boolean>> BooleanArray.filterNotTo(destination: C, predicate: (Boolean) -> Boolean): C {\n for (element in this)
if (!predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Appends all elements not
matching the given [predicate] to the given [destination].\n *\npublic inline fun <C : MutableCollection<in Char>>
CharArray.filterNotTo(destination: C, predicate: (Char) -> Boolean): C {\n for (element in this) if
(!predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Appends all elements matching
the given [predicate] to the given [destination].\n *\npublic inline fun <T, C : MutableCollection<in T>> Array<out
T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n for (element in this) if (predicate(element))
destination.add(element)\n return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to
the given [destination].\n *\npublic inline fun <C : MutableCollection<in Byte>> ByteArray.filterTo(destination: C,
predicate: (Byte) -> Boolean): C {\n for (element in this) if (predicate(element)) destination.add(element)\n
return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n
*\npublic inline fun <C : MutableCollection<in Short>> ShortArray.filterTo(destination: C, predicate: (Short) ->
Boolean): C {\n for (element in this) if (predicate(element)) destination.add(element)\n return
destination\n}\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n
*\npublic inline fun <C : MutableCollection<in Int>> IntArray.filterTo(destination: C, predicate: (Int) -> Boolean):
C {\n for (element in this) if (predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n *
Appends all elements matching the given [predicate] to the given [destination].\n *\npublic inline fun <C :
MutableCollection<in Long>> LongArray.filterTo(destination: C, predicate: (Long) -> Boolean): C {\n for
(element in this) if (predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Appends all
elements matching the given [predicate] to the given [destination].\n *\npublic inline fun <C :
MutableCollection<in Float>> FloatArray.filterTo(destination: C, predicate: (Float) -> Boolean): C {\n for
(element in this) if (predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Appends all
elements matching the given [predicate] to the given [destination].\n *\npublic inline fun <C :
MutableCollection<in Double>> DoubleArray.filterTo(destination: C, predicate: (Double) -> Boolean): C {\n for
(element in this) if (predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Appends all
elements matching the given [predicate] to the given [destination].\n *\npublic inline fun <C :
MutableCollection<in Boolean>> BooleanArray.filterTo(destination: C, predicate: (Boolean) -> Boolean): C {\n
for (element in this) if (predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Appends
all elements matching the given [predicate] to the given [destination].\n *\npublic inline fun <C :
MutableCollection<in Char>> CharArray.filterTo(destination: C, predicate: (Char) -> Boolean): C {\n for
(element in this) if (predicate(element)) destination.add(element)\n return destination\n}\n\n/**\n * Returns a list
containing elements at indices in the specified [indices] range.\n *\npublic fun <T> Array<out T>.slice(indices:
IntRange): List<T> {\n if (indices.isEmpty()) return listOf()\n return copyOfRange(indices.start,
indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified

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[indices] range.\n */\npublic fun ByteArray.slice(indices: IntRange): List<Byte> {\n  if (indices.isEmpty()) return
listOf()\n  return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list
containing elements at indices in the specified [indices] range.\n */\npublic fun ShortArray.slice(indices: IntRange):
List<Short> {\n  if (indices.isEmpty()) return listOf()\n  return copyOfRange(indices.start, indices.endInclusive +
1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic
fun IntArray.slice(indices: IntRange): List<Int> {\n  if (indices.isEmpty()) return listOf()\n  return
copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at
indices in the specified [indices] range.\n */\npublic fun LongArray.slice(indices: IntRange): List<Long> {\n  if
(indices.isEmpty()) return listOf()\n  return copyOfRange(indices.start, indices.endInclusive +
1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic
fun FloatArray.slice(indices: IntRange): List<Float> {\n  if (indices.isEmpty()) return listOf()\n  return
copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at
indices in the specified [indices] range.\n */\npublic fun DoubleArray.slice(indices: IntRange): List<Double> {\n
if (indices.isEmpty()) return listOf()\n  return copyOfRange(indices.start, indices.endInclusive +
1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n */\npublic
fun BooleanArray.slice(indices: IntRange): List<Boolean> {\n  if (indices.isEmpty()) return listOf()\n  return
copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at
indices in the specified [indices] range.\n */\npublic fun CharArray.slice(indices: IntRange): List<Char> {\n  if
(indices.isEmpty()) return listOf()\n  return copyOfRange(indices.start, indices.endInclusive +
1).asList()\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun <T> Array<out
T>.slice(indices: Iterable<Int>): List<T> {\n  val size = indices.collectionSizeOrDefault(10)\n  if (size == 0)
return emptyList()\n  val list = ArrayList<T>(size)\n  for (index in indices) {\n    list.add(get(index))\n  }\n
return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun
ByteArray.slice(indices: Iterable<Int>): List<Byte> {\n  val size = indices.collectionSizeOrDefault(10)\n  if (size
== 0) return emptyList()\n  val list = ArrayList<Byte>(size)\n  for (index in indices) {\n    list.add(get(index))\n
  }\n  return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n */\npublic fun
ShortArray.slice(indices: Iterable<Int>): List<Short> {\n  val size = indices.collectionSizeOrDefault(10)\n  if
(size == 0) return emptyList()\n  val list = ArrayList<Short>(size)\n  for (index in indices) {\n
list.add(get(index))\n  }\n  return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n
*/\npublic fun IntArray.slice(indices: Iterable<Int>): List<Int> {\n  val size =
indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list = ArrayList<Int>(size)\n
for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n * Returns a list containing elements at
specified [indices].\n */\npublic fun LongArray.slice(indices: Iterable<Int>): List<Long> {\n  val size =
indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list = ArrayList<Long>(size)\n
for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n * Returns a list containing
elements at specified [indices].\n */\npublic fun FloatArray.slice(indices: Iterable<Int>): List<Float> {\n  val size =
indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list = ArrayList<Float>(size)\n
for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n * Returns a list containing
elements at specified [indices].\n */\npublic fun DoubleArray.slice(indices: Iterable<Int>): List<Double> {\n  val
size = indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list =
ArrayList<Double>(size)\n  for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n *
Returns a list containing elements at specified [indices].\n */\npublic fun BooleanArray.slice(indices: Iterable<Int>):
List<Boolean> {\n  val size = indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list
= ArrayList<Boolean>(size)\n  for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n *
Returns a list containing elements at specified [indices].\n */\npublic fun CharArray.slice(indices: Iterable<Int>):
List<Char> {\n  val size = indices.collectionSizeOrDefault(10)\n  if (size == 0) return emptyList()\n  val list =
ArrayList<Char>(size)\n  for (index in indices) {\n    list.add(get(index))\n  }\n  return list\n}\n\n/**\n *
Returns an array containing elements of this array at specified [indices].\n */\npublic fun <T>

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Array<T>.sliceArray(indices: Collection<Int>): Array<T> {\n  val result = arrayOfNulls(this, indices.size)\n  var\n  targetIndex = 0\n  for (sourceIndex in indices) {\n    result[targetIndex++] = this[sourceIndex]\n  }\n  return\n  result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\n\npublic fun\nByteArray.sliceArray(indices: Collection<Int>): ByteArray {\n  val result = ByteArray(indices.size)\n  var\n  targetIndex = 0\n  for (sourceIndex in indices) {\n    result[targetIndex++] = this[sourceIndex]\n  }\n  return\n  result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\n\npublic fun\nShortArray.sliceArray(indices: Collection<Int>): ShortArray {\n  val result = ShortArray(indices.size)\n  var\n  targetIndex = 0\n  for (sourceIndex in indices) {\n    result[targetIndex++] = this[sourceIndex]\n  }\n  return\n  result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\n\npublic fun\nIntArray.sliceArray(indices: Collection<Int>): IntArray {\n  val result = IntArray(indices.size)\n  var targetIndex\n  = 0\n  for (sourceIndex in indices) {\n    result[targetIndex++] = this[sourceIndex]\n  }\n  return\n  result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\n\npublic fun\nLongArray.sliceArray(indices: Collection<Int>): LongArray {\n  val result = LongArray(indices.size)\n  var\n  targetIndex = 0\n  for (sourceIndex in indices) {\n    result[targetIndex++] = this[sourceIndex]\n  }\n  return\n  result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\n\npublic fun\nFloatArray.sliceArray(indices: Collection<Int>): FloatArray {\n  val result = FloatArray(indices.size)\n  var\n  targetIndex = 0\n  for (sourceIndex in indices) {\n    result[targetIndex++] = this[sourceIndex]\n  }\n  return\n  result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\n\npublic fun\nDoubleArray.sliceArray(indices: Collection<Int>): DoubleArray {\n  val result = DoubleArray(indices.size)\n  var\n  targetIndex = 0\n  for (sourceIndex in indices) {\n    result[targetIndex++] = this[sourceIndex]\n  }\n  return\n  result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\n\npublic fun\nBooleanArray.sliceArray(indices: Collection<Int>): BooleanArray {\n  val result = BooleanArray(indices.size)\n  var\n  targetIndex = 0\n  for (sourceIndex in indices) {\n    result[targetIndex++] = this[sourceIndex]\n  }\n  return\n  result\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n */\n\npublic fun\nCharArray.sliceArray(indices: Collection<Int>): CharArray {\n  val result = CharArray(indices.size)\n  var\n  targetIndex = 0\n  for (sourceIndex in indices) {\n    result[targetIndex++] = this[sourceIndex]\n  }\n  return\n  result\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\n\npublic fun\n<T> Array<T>.sliceArray(indices: IntRange): Array<T> {\n  if (indices.isEmpty()) return copyOfRange(0, 0)\n  return\n  copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at\n  indices in the specified [indices] range.\n */\n\npublic fun\nByteArray.sliceArray(indices: IntRange): ByteArray {\n  if\n  (indices.isEmpty()) return ByteArray(0)\n  return\n  copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\n\npublic fun\nShortArray.sliceArray(indices: IntRange): ShortArray {\n  if (indices.isEmpty()) return ShortArray(0)\n  return\n  copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices\n  in the specified [indices] range.\n */\n\npublic fun\nIntArray.sliceArray(indices: IntRange): IntArray {\n  if\n  (indices.isEmpty()) return IntArray(0)\n  return\n  copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\n\npublic fun\nLongArray.sliceArray(indices: IntRange): LongArray {\n  if (indices.isEmpty()) return LongArray(0)\n  return\n  copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices\n  in the specified [indices] range.\n */\n\npublic fun\nFloatArray.sliceArray(indices: IntRange): FloatArray {\n  if\n  (indices.isEmpty()) return FloatArray(0)\n  return\n  copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\n\npublic fun\nDoubleArray.sliceArray(indices: IntRange): DoubleArray {\n  if (indices.isEmpty()) return DoubleArray(0)\n  return\n  copyOfRange(indices.start, indices.endInclusive + 1)\n}\n\n/**\n * Returns an array containing elements at\n  indices in the specified [indices] range.\n */\n\npublic fun\nBooleanArray.sliceArray(indices: IntRange): BooleanArray\n{\n  if (indices.isEmpty()) return BooleanArray(0)\n  return\n  copyOfRange(indices.start, indices.endInclusive +\n  1)\n}\n\n/**\n * Returns an array containing elements at indices in the specified [indices] range.\n */\n\npublic fun\nCharArray.sliceArray(indices: IntRange): CharArray {\n  if (indices.isEmpty()) return CharArray(0)\n  return

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copyOfRange(indices.start, indices.endInclusive + 1)\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic fun <T> Array<out T>.take(n: Int): List<T> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n if (n == 0) return emptyList()\n if (n >=
size) return toList()\n if (n == 1) return listOf(this[0])\n var count = 0\n val list = ArrayList<T>(n)\n for
(item in this) {\n if (count++ == n)\n break\n list.add(item)\n }\n return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic fun ByteArray.take(n: Int): List<Byte> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n if (n == 0) return emptyList()\n if (n >=
size) return toList()\n if (n == 1) return listOf(this[0])\n var count = 0\n val list = ArrayList<Byte>(n)\n for
(item in this) {\n if (count++ == n)\n break\n list.add(item)\n }\n return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic fun ShortArray.take(n: Int): List<Short> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n if (n == 0) return emptyList()\n if (n >=
size) return toList()\n if (n == 1) return listOf(this[0])\n var count = 0\n val list = ArrayList<Short>(n)\n for
(item in this) {\n if (count++ == n)\n break\n list.add(item)\n }\n return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic fun IntArray.take(n: Int): List<Int> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n if (n == 0) return emptyList()\n if (n >=
size) return toList()\n if (n == 1) return listOf(this[0])\n var count = 0\n val list = ArrayList<Int>(n)\n for
(item in this) {\n if (count++ == n)\n break\n list.add(item)\n }\n return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic fun LongArray.take(n: Int): List<Long> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n if (n == 0) return emptyList()\n if (n >=
size) return toList()\n if (n == 1) return listOf(this[0])\n var count = 0\n val list = ArrayList<Long>(n)\n for
(item in this) {\n if (count++ == n)\n break\n list.add(item)\n }\n return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic fun FloatArray.take(n: Int): List<Float> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n if (n == 0) return emptyList()\n if (n >=
size) return toList()\n if (n == 1) return listOf(this[0])\n var count = 0\n val list = ArrayList<Float>(n)\n for
(item in this) {\n if (count++ == n)\n break\n list.add(item)\n }\n return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic fun DoubleArray.take(n: Int): List<Double> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n if (n == 0) return emptyList()\n if (n >=
size) return toList()\n if (n == 1) return listOf(this[0])\n var count = 0\n val list = ArrayList<Double>(n)\n
for (item in this) {\n if (count++ == n)\n break\n list.add(item)\n }\n return list\n}\n\n/**\n *
Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n *
@sample samples.collections.Collections.Transformations.take\n *\npublic fun BooleanArray.take(n: Int):
List<Boolean> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n if (n == 0) return
emptyList()\n if (n >= size) return toList()\n if (n == 1) return listOf(this[0])\n var count = 0\n val list =
ArrayList<Boolean>(n)\n for (item in this) {\n if (count++ == n)\n break\n list.add(item)\n }\n
return list\n}\n\n/**\n * Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if
[n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic fun
CharArray.take(n: Int): List<Char> {\n require(n >= 0) { \"Requested element count $n is less than zero.\" }\n
if (n == 0) return emptyList()\n if (n >= size) return toList()\n if (n == 1) return listOf(this[0])\n var
count = 0\n val list = ArrayList<Char>(n)\n for (item in this) {\n if (count++ == n)\n break\n
list.add(item)\n }\n return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample

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samples.collections.Collections.Transformations.take\n *^\npublic fun <T> Array<out T>.takeLast(n: Int): List<T>
{\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val
size = size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list =
ArrayList<T>(n)\n  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns
a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *^\npublic fun ByteArray.takeLast(n: Int): List<Byte> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size =
size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<Byte>(n)\n
for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last
[n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *^\npublic fun ShortArray.takeLast(n: Int): List<Short> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size =
size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<Short>(n)\n
for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last
[n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *^\npublic fun IntArray.takeLast(n: Int): List<Int> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size =
size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<Int>(n)\n
for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last
[n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *^\npublic fun LongArray.takeLast(n: Int): List<Long> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size =
size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<Long>(n)\n
for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last
[n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *^\npublic fun FloatArray.takeLast(n: Int): List<Float> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val size =
size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list = ArrayList<Float>(n)\n
for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n * Returns a list containing last
[n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *^\npublic fun DoubleArray.takeLast(n: Int): List<Double>
{\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return emptyList()\n  val
size = size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list =
ArrayList<Double>(n)\n  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n *
Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n *
@sample samples.collections.Collections.Transformations.take\n *^\npublic fun BooleanArray.takeLast(n: Int):
List<Boolean> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return
emptyList()\n  val size = size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list
= ArrayList<Boolean>(n)\n  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n *
Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n *
@sample samples.collections.Collections.Transformations.take\n *^\npublic fun CharArray.takeLast(n: Int):
List<Char> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  if (n == 0) return
emptyList()\n  val size = size\n  if (n >= size) return toList()\n  if (n == 1) return listOf(this[size - 1])\n  val list
= ArrayList<Char>(n)\n  for (index in size - n until size)\n    list.add(this[index])\n  return list\n}\n\n/**\n *
Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *^\npublic inline fun <T> Array<out
T>.takeLastWhile(predicate: (T) -> Boolean): List<T> {\n  for (index in lastIndex downTo 0) {\n    if
(!predicate(this[index])) {\n      return drop(index + 1)\n    }\n  }\n  return toList()\n}\n\n/**\n * Returns a

```

```

list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun ByteArray.takeLastWhile(predicate:
(Byte) -> Boolean): List<Byte> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n
return drop(index + 1)\n } \n } \n return toList()\n}\n\n/**\n * Returns a list containing last elements
satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic
inline fun ShortArray.takeLastWhile(predicate: (Short) -> Boolean): List<Short> {\n for (index in lastIndex
downTo 0) {\n if (!predicate(this[index])) {\n return drop(index + 1)\n } \n } \n return
toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun IntArray.takeLastWhile(predicate: (Int)
-> Boolean): List<Int> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n return
drop(index + 1)\n } \n } \n return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the
given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic inline fun
LongArray.takeLastWhile(predicate: (Long) -> Boolean): List<Long> {\n for (index in lastIndex downTo 0) {\n
if (!predicate(this[index])) {\n return drop(index + 1)\n } \n } \n return toList()\n}\n\n/**\n * Returns
a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun FloatArray.takeLastWhile(predicate:
(Float) -> Boolean): List<Float> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n
return drop(index + 1)\n } \n } \n return toList()\n}\n\n/**\n * Returns a list containing last elements
satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic
inline fun DoubleArray.takeLastWhile(predicate: (Double) -> Boolean): List<Double> {\n for (index in lastIndex
downTo 0) {\n if (!predicate(this[index])) {\n return drop(index + 1)\n } \n } \n return
toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun
BooleanArray.takeLastWhile(predicate: (Boolean) -> Boolean): List<Boolean> {\n for (index in lastIndex
downTo 0) {\n if (!predicate(this[index])) {\n return drop(index + 1)\n } \n } \n return
toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun CharArray.takeLastWhile(predicate:
(Char) -> Boolean): List<Char> {\n for (index in lastIndex downTo 0) {\n if (!predicate(this[index])) {\n
return drop(index + 1)\n } \n } \n return toList()\n}\n\n/**\n * Returns a list containing first elements
satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic
inline fun <T> Array<out T>.takeWhile(predicate: (T) -> Boolean): List<T> {\n val list = ArrayList<T>()\n for
(item in this) {\n if (!predicate(item))\n break\n list.add(item)\n } \n return list\n}\n\n/**\n *
Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun ByteArray.takeWhile(predicate: (Byte)
-> Boolean): List<Byte> {\n val list = ArrayList<Byte>()\n for (item in this) {\n if (!predicate(item))\n
break\n list.add(item)\n } \n return list\n}\n\n/**\n * Returns a list containing first elements satisfying the
given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic inline fun
ShortArray.takeWhile(predicate: (Short) -> Boolean): List<Short> {\n val list = ArrayList<Short>()\n for (item
in this) {\n if (!predicate(item))\n break\n list.add(item)\n } \n return list\n}\n\n/**\n * Returns a
list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun IntArray.takeWhile(predicate: (Int) ->
Boolean): List<Int> {\n val list = ArrayList<Int>()\n for (item in this) {\n if (!predicate(item))\n
break\n list.add(item)\n } \n return list\n}\n\n/**\n * Returns a list containing first elements satisfying the
given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *\npublic inline fun
LongArray.takeWhile(predicate: (Long) -> Boolean): List<Long> {\n val list = ArrayList<Long>()\n for (item
in this) {\n if (!predicate(item))\n break\n list.add(item)\n } \n return list\n}\n\n/**\n * Returns a
list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n *\npublic inline fun FloatArray.takeWhile(predicate:

```

```

(Float) -> Boolean): List<Float> {\n  val list = ArrayList<Float>()\n  for (item in this) {\n    if
(!predicate(item))\n      break\n    list.add(item)\n  }\n  return list}\n\n/n/**\n * Returns a list containing first
elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n
*/\npublic inline fun DoubleArray.takeWhile(predicate: (Double) -> Boolean): List<Double> {\n  val list =
ArrayList<Double>()\n  for (item in this) {\n    if (!predicate(item))\n      break\n    list.add(item)\n  }\n
return list}\n\n/n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic inline fun BooleanArray.takeWhile(predicate:
(Boolean) -> Boolean): List<Boolean> {\n  val list = ArrayList<Boolean>()\n  for (item in this) {\n    if
(!predicate(item))\n      break\n    list.add(item)\n  }\n  return list}\n\n/n/**\n * Returns a list containing first
elements satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n
*/\npublic inline fun CharArray.takeWhile(predicate: (Char) -> Boolean): List<Char> {\n  val list =
ArrayList<Char>()\n  for (item in this) {\n    if (!predicate(item))\n      break\n    list.add(item)\n  }\n
return list}\n\n/n/**\n * Reverses elements in the array in-place.\n */\npublic fun <T> Array<T>.reverse(): Unit {\n
val midPoint = (size / 2) - 1\n  if (midPoint < 0) return\n  var reverseIndex = lastIndex\n  for (index in
0..midPoint) {\n    val tmp = this[index]\n    this[index] = this[reverseIndex]\n    this[reverseIndex] = tmp\n
reverseIndex--\n  }\n}\n\n/n/**\n * Reverses elements in the array in-place.\n */\npublic fun ByteArray.reverse():
Unit {\n  val midPoint = (size / 2) - 1\n  if (midPoint < 0) return\n  var reverseIndex = lastIndex\n  for (index in
0..midPoint) {\n    val tmp = this[index]\n    this[index] = this[reverseIndex]\n    this[reverseIndex] = tmp\n
reverseIndex--\n  }\n}\n\n/n/**\n * Reverses elements in the array in-place.\n */\npublic fun ShortArray.reverse():
Unit {\n  val midPoint = (size / 2) - 1\n  if (midPoint < 0) return\n  var reverseIndex = lastIndex\n  for (index in
0..midPoint) {\n    val tmp = this[index]\n    this[index] = this[reverseIndex]\n    this[reverseIndex] = tmp\n
reverseIndex--\n  }\n}\n\n/n/**\n * Reverses elements in the array in-place.\n */\npublic fun IntArray.reverse():
Unit {\n  val midPoint = (size / 2) - 1\n  if (midPoint < 0) return\n  var reverseIndex = lastIndex\n  for (index in
0..midPoint) {\n    val tmp = this[index]\n    this[index] = this[reverseIndex]\n    this[reverseIndex] = tmp\n
reverseIndex--\n  }\n}\n\n/n/**\n * Reverses elements in the array in-place.\n */\npublic fun LongArray.reverse():
Unit {\n  val midPoint = (size / 2) - 1\n  if (midPoint < 0) return\n  var reverseIndex = lastIndex\n  for (index in
0..midPoint) {\n    val tmp = this[index]\n    this[index] = this[reverseIndex]\n    this[reverseIndex] = tmp\n
reverseIndex--\n  }\n}\n\n/n/**\n * Reverses elements in the array in-place.\n */\npublic fun FloatArray.reverse():
Unit {\n  val midPoint = (size / 2) - 1\n  if (midPoint < 0) return\n  var reverseIndex = lastIndex\n  for (index in
0..midPoint) {\n    val tmp = this[index]\n    this[index] = this[reverseIndex]\n    this[reverseIndex] = tmp\n
reverseIndex--\n  }\n}\n\n/n/**\n * Reverses elements in the array in-place.\n */\npublic fun
DoubleArray.reverse(): Unit {\n  val midPoint = (size / 2) - 1\n  if (midPoint < 0) return\n  var reverseIndex =
lastIndex\n  for (index in 0..midPoint) {\n    val tmp = this[index]\n    this[index] = this[reverseIndex]\n
this[reverseIndex] = tmp\n    reverseIndex--\n  }\n}\n\n/n/**\n * Reverses elements in the array in-place.\n
*/\npublic fun BooleanArray.reverse(): Unit {\n  val midPoint = (size / 2) - 1\n  if (midPoint < 0) return\n  var
reverseIndex = lastIndex\n  for (index in 0..midPoint) {\n    val tmp = this[index]\n    this[index] =
this[reverseIndex]\n    this[reverseIndex] = tmp\n    reverseIndex--\n  }\n}\n\n/n/**\n * Reverses elements in the
array in-place.\n */\npublic fun CharArray.reverse(): Unit {\n  val midPoint = (size / 2) - 1\n  if (midPoint < 0)
return\n  var reverseIndex = lastIndex\n  for (index in 0..midPoint) {\n    val tmp = this[index]\n    this[index]
= this[reverseIndex]\n    this[reverseIndex] = tmp\n    reverseIndex--\n  }\n}\n\n/n/**\n * Returns a list with
elements in reversed order.\n */\npublic fun <T> Array<out T>.reversed(): List<T> {\n  if (isEmpty()) return
emptyList()\n  val list = toMutableList()\n  list.reverse()\n  return list}\n\n/n/**\n * Returns a list with elements
in reversed order.\n */\npublic fun ByteArray.reversed(): List<Byte> {\n  if (isEmpty()) return emptyList()\n  val
list = toMutableList()\n  list.reverse()\n  return list}\n\n/n/**\n * Returns a list with elements in reversed order.\n
*/\npublic fun ShortArray.reversed(): List<Short> {\n  if (isEmpty()) return emptyList()\n  val list =
toMutableList()\n  list.reverse()\n  return list}\n\n/n/**\n * Returns a list with elements in reversed order.\n
*/\npublic fun IntArray.reversed(): List<Int> {\n  if (isEmpty()) return emptyList()\n  val list = toMutableList()\n
list.reverse()\n  return list}\n\n/n/**\n * Returns a list with elements in reversed order.\n */\npublic fun

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LongArray.reversed(): List<Long> {\n  if (isEmpty()) return emptyList()\n  val list = toMutableList()\n  list.reverse()\n  return list}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun
FloatArray.reversed(): List<Float> {\n  if (isEmpty()) return emptyList()\n  val list = toMutableList()\n  list.reverse()\n  return list}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun
DoubleArray.reversed(): List<Double> {\n  if (isEmpty()) return emptyList()\n  val list = toMutableList()\n  list.reverse()\n  return list}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun
BooleanArray.reversed(): List<Boolean> {\n  if (isEmpty()) return emptyList()\n  val list = toMutableList()\n  list.reverse()\n  return list}\n\n/**\n * Returns a list with elements in reversed order.\n */\npublic fun
CharArray.reversed(): List<Char> {\n  if (isEmpty()) return emptyList()\n  val list = toMutableList()\n  list.reverse()\n  return list}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic
fun <T> Array<T>.reversedArray(): Array<T> {\n  if (isEmpty()) return this\n  val result = arrayOfNulls(this,
size)\n  val lastIndex = lastIndex\n  for (i in 0..lastIndex)\n    result[lastIndex - i] = this[i]\n  return
result}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun
ByteArray.reversedArray(): ByteArray {\n  if (isEmpty()) return this\n  val result = ByteArray(size)\n  val
lastIndex = lastIndex\n  for (i in 0..lastIndex)\n    result[lastIndex - i] = this[i]\n  return result}\n\n/**\n *
Returns an array with elements of this array in reversed order.\n */\npublic fun ShortArray.reversedArray():
ShortArray {\n  if (isEmpty()) return this\n  val result = ShortArray(size)\n  val lastIndex = lastIndex\n  for (i in
0..lastIndex)\n    result[lastIndex - i] = this[i]\n  return result}\n\n/**\n * Returns an array with elements of this
array in reversed order.\n */\npublic fun IntArray.reversedArray(): IntArray {\n  if (isEmpty()) return this\n  val
result = IntArray(size)\n  val lastIndex = lastIndex\n  for (i in 0..lastIndex)\n    result[lastIndex - i] = this[i]\n
return result}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun
LongArray.reversedArray(): LongArray {\n  if (isEmpty()) return this\n  val result = LongArray(size)\n  val
lastIndex = lastIndex\n  for (i in 0..lastIndex)\n    result[lastIndex - i] = this[i]\n  return result}\n\n/**\n *
Returns an array with elements of this array in reversed order.\n */\npublic fun FloatArray.reversedArray():
FloatArray {\n  if (isEmpty()) return this\n  val result = FloatArray(size)\n  val lastIndex = lastIndex\n  for (i in
0..lastIndex)\n    result[lastIndex - i] = this[i]\n  return result}\n\n/**\n * Returns an array with elements of this
array in reversed order.\n */\npublic fun DoubleArray.reversedArray(): DoubleArray {\n  if (isEmpty()) return
this\n  val result = DoubleArray(size)\n  val lastIndex = lastIndex\n  for (i in 0..lastIndex)\n    result[lastIndex -
i] = this[i]\n  return result}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic
fun BooleanArray.reversedArray(): BooleanArray {\n  if (isEmpty()) return this\n  val result =
BooleanArray(size)\n  val lastIndex = lastIndex\n  for (i in 0..lastIndex)\n    result[lastIndex - i] = this[i]\n
return result}\n\n/**\n * Returns an array with elements of this array in reversed order.\n */\npublic fun
CharArray.reversedArray(): CharArray {\n  if (isEmpty()) return this\n  val result = CharArray(size)\n  val
lastIndex = lastIndex\n  for (i in 0..lastIndex)\n    result[lastIndex - i] = this[i]\n  return result}\n\n/**\n *
Sorts elements in the array in-place according to natural sort order of the value returned by specified [selector]
function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after
sorting.\n */\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortBy(crossinline selector: (T) -> R?): Unit
{\n  if (size > 1) sortWith(compareBy(selector))}\n\n/**\n * Sorts elements in the array in-place descending
according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It
means that equal elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R :
Comparable<R>> Array<out T>.sortByDescending(crossinline selector: (T) -> R?): Unit {\n  if (size > 1)
sortWith(compareByDescending(selector))}\n\n/**\n * Sorts elements in the array in-place descending according
to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to
each other after sorting.\n */\npublic fun <T : Comparable<T>> Array<out T>.sortDescending(): Unit {\n
sortWith(reverseOrder())}\n\n/**\n * Sorts elements in the array in-place descending according to their natural
sort order.\n */\npublic fun ByteArray.sortDescending(): Unit {\n  if (size > 1) {\n    sort()\n    reverse()\n  }\n}\n\n/**\n * Sorts elements in the array in-place descending according to their natural sort order.\n */\npublic fun
ShortArray.sortDescending(): Unit {\n  if (size > 1) {\n    sort()\n    reverse()\n  }\n}\n\n/**\n * Sorts

```

elements in the array in-place descending according to their natural sort order.

```

public fun
IntArray.sortDescending(): Unit {
    if (size > 1) {
        sort()
        reverse()
    }
}

```

\* Sorts elements in the array in-place descending according to their natural sort order.

```

public fun LongArray.sortDescending():
Unit {
    if (size > 1) {
        sort()
        reverse()
    }
}

```

\* Sorts elements in the array in-place descending according to their natural sort order.

```

public fun FloatArray.sortDescending(): Unit {
    if (size >
1) {
        sort()
        reverse()
    }
}

```

\* Sorts elements in the array in-place descending according to their natural sort order.

```

public fun DoubleArray.sortDescending(): Unit {
    if (size > 1) {
        sort()
        reverse()
    }
}

```

\* Sorts elements in the array in-place descending according to their natural sort order.

```

public fun CharArray.sortDescending(): Unit {
    if (size > 1) {
        sort()
        reverse()
    }
}

```

\* Returns a list of all elements sorted according to their natural sort order.

```

fun <T> : Comparable<T>>
Array<out T>.sorted(): List<T> {
    return sortedArray().asList()
}

```

\* Returns a list of all elements sorted according to their natural sort order.

```

public fun ByteArray.sorted(): List<Byte> {
    return
toTypedArray().apply { sort() }.asList()
}

```

\* Returns a list of all elements sorted according to their natural sort order.

```

public fun ShortArray.sorted(): List<Short> {
    return toTypedArray().apply { sort()
}
}.asList()
}

```

\* Returns a list of all elements sorted according to their natural sort order.

```

public fun IntArray.sorted(): List<Int> {
    return toTypedArray().apply { sort() }.asList()
}

```

\* Returns a list of all elements sorted according to their natural sort order.

```

public fun LongArray.sorted(): List<Long> {
    return
toTypedArray().apply { sort() }.asList()
}

```

\* Returns a list of all elements sorted according to their natural sort order.

```

public fun FloatArray.sorted(): List<Float> {
    return toTypedArray().apply { sort()
}
}.asList()
}

```

\* Returns a list of all elements sorted according to their natural sort order.

```

public fun DoubleArray.sorted(): List<Double> {
    return toTypedArray().apply { sort() }.asList()
}

```

\* Returns a list of all elements sorted according to their natural sort order.

```

public fun CharArray.sorted(): List<Char> {
    return
toTypedArray().apply { sort() }.asList()
}

```

\* Returns an array with all elements of this array sorted according to their natural sort order.

```

fun <T> : Comparable<T>> Array<T>.sortedArray(): Array<T> {
    if (isEmpty()) return this
    return this.copyOf().apply { sort() }
}

```

\* Returns an array with all elements of this array sorted according to their natural sort order.

```

public fun ByteArray.sortedArray(): ByteArray {
    if (isEmpty()) return this
    return this.copyOf().apply { sort() }
}

```

\* Returns an array with all elements of this array sorted according to their natural sort order.

```

public fun ShortArray.sortedArray(): ShortArray {
    if (isEmpty()) return this
    return this.copyOf().apply { sort() }
}

```

\* Returns an array with all elements of this array sorted according to their natural sort order.

```

public fun IntArray.sortedArray(): IntArray {
    if (isEmpty()) return this
    return this.copyOf().apply { sort() }
}

```

\* Returns an array with all elements of this array sorted according to their natural sort order.

```

public fun LongArray.sortedArray(): LongArray {
    if (isEmpty()) return this
    return this.copyOf().apply { sort() }
}

```

\* Returns an array with all elements of this array sorted according to their natural sort order.

```

public fun FloatArray.sortedArray(): FloatArray {
    if (isEmpty()) return this
    return this.copyOf().apply { sort() }
}

```

\* Returns an array with all elements of this array sorted according to their natural sort order.

```

public fun DoubleArray.sortedArray(): DoubleArray {
    if (isEmpty()) return this
    return this.copyOf().apply { sort() }
}

```

\* Returns an array with all elements of this array sorted according to their natural sort order.

```

public fun CharArray.sortedArray(): CharArray {
    if (isEmpty()) return this
    return this.copyOf().apply { sort() }
}

```

\* Returns an array with all elements of this array sorted descending according to their natural sort order.

```

fun <T> : Comparable<T>>
Array<T>.sortedArrayDescending(): Array<T> {
    if (isEmpty()) return this
    return this.copyOf().apply {
        sortWith(reverseOrder())
    }
}

```

\* Returns an array with all elements of this array sorted descending according to their natural sort order.

```

public fun ByteArray.sortedArrayDescending(): ByteArray {
    if (isEmpty()) return this
    return this.copyOf().apply { sortDescending() }
}

```

\* Returns an array with all elements of this array sorted descending according to their natural sort order.

```

public fun

```

```

ShortArray.sortedArrayDescending(): ShortArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply {
sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to
their natural sort order.\n */\npublic fun IntArray.sortedArrayDescending(): IntArray {\n  if (isEmpty()) return
this\n  return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this
array sorted descending according to their natural sort order.\n */\npublic fun LongArray.sortedArrayDescending():
LongArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns
an array with all elements of this array sorted descending according to their natural sort order.\n */\npublic fun
FloatArray.sortedArrayDescending(): FloatArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply {
sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted descending according to
their natural sort order.\n */\npublic fun DoubleArray.sortedArrayDescending(): DoubleArray {\n  if (isEmpty())
return this\n  return this.copyOf().apply { sortDescending() }\n}\n\n/**\n * Returns an array with all elements of
this array sorted descending according to their natural sort order.\n */\npublic fun
CharArray.sortedArrayDescending(): CharArray {\n  if (isEmpty()) return this\n  return this.copyOf().apply {
sortDescending() }\n}\n\n/**\n * Returns an array with all elements of this array sorted according the specified
[comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other
after sorting.\n */\npublic fun <T> Array<out T>.sortedArrayWith(comparator: Comparator<in T>): Array<out T>
{\n  if (isEmpty()) return this\n  return this.copyOf().apply { sortWith(comparator) }\n}\n\n/**\n * Returns a list
of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n *
The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */
\npublic inline fun <T, R : Comparable<R>> Array<out T>.sortedBy(crossinline selector: (T) -> R?): List<T> {\n
  return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort
order of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>>
ByteArray.sortedBy(crossinline selector: (Byte) -> R?): List<Byte> {\n  return
sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order
of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>>
ShortArray.sortedBy(crossinline selector: (Short) -> R?): List<Short> {\n  return
sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order
of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>>
IntArray.sortedBy(crossinline selector: (Int) -> R?): List<Int> {\n  return
sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order
of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>>
LongArray.sortedBy(crossinline selector: (Long) -> R?): List<Long> {\n  return
sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order
of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>>
FloatArray.sortedBy(crossinline selector: (Float) -> R?): List<Float> {\n  return
sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order
of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>>
DoubleArray.sortedBy(crossinline selector: (Double) -> R?): List<Double> {\n  return
sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order
of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>>
BooleanArray.sortedBy(crossinline selector: (Boolean) -> R?): List<Boolean> {\n  return
sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order
of the value returned by specified [selector] function.\n */\npublic inline fun <R : Comparable<R>>
CharArray.sortedBy(crossinline selector: (Char) -> R?): List<Char> {\n  return
sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural
sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal
elements preserve their order relative to each other after sorting.\n */\npublic inline fun <T, R : Comparable<R>>
Array<out T>.sortedByDescending(crossinline selector: (T) -> R?): List<T> {\n  return

```

sortedWith(compareByDescending(selector))\n\n/\*\*\n \* Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n \*/\npublic inline fun <R : Comparable<R>> ByteArray.sortedByDescending(crossinline selector: (Byte) -> R?): List<Byte> {\n return sortedWith(compareByDescending(selector))\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n \*/\npublic inline fun <R : Comparable<R>> ShortArray.sortedByDescending(crossinline selector: (Short) -> R?): List<Short> {\n return sortedWith(compareByDescending(selector))\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n \*/\npublic inline fun <R : Comparable<R>> IntArray.sortedByDescending(crossinline selector: (Int) -> R?): List<Int> {\n return sortedWith(compareByDescending(selector))\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n \*/\npublic inline fun <R : Comparable<R>> LongArray.sortedByDescending(crossinline selector: (Long) -> R?): List<Long> {\n return sortedWith(compareByDescending(selector))\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n \*/\npublic inline fun <R : Comparable<R>> FloatArray.sortedByDescending(crossinline selector: (Float) -> R?): List<Float> {\n return sortedWith(compareByDescending(selector))\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n \*/\npublic inline fun <R : Comparable<R>> DoubleArray.sortedByDescending(crossinline selector: (Double) -> R?): List<Double> {\n return sortedWith(compareByDescending(selector))\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n \*/\npublic inline fun <R : Comparable<R>> BooleanArray.sortedByDescending(crossinline selector: (Boolean) -> R?): List<Boolean> {\n return sortedWith(compareByDescending(selector))\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n \*/\npublic inline fun <R : Comparable<R>> CharArray.sortedByDescending(crossinline selector: (Char) -> R?): List<Char> {\n return sortedWith(compareByDescending(selector))\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to their natural sort order.\n \* \n \* The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.\n \*/\npublic fun <T : Comparable<T>> Array<out T>.sortedDescending(): List<T> {\n return sortedWith(reverseOrder())\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to their natural sort order.\n \*/\npublic fun ByteArray.sortedDescending(): List<Byte> {\n return copyOf().apply { sort() }.reversed()\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to their natural sort order.\n \*/\npublic fun ShortArray.sortedDescending(): List<Short> {\n return copyOf().apply { sort() }.reversed()\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to their natural sort order.\n \*/\npublic fun IntArray.sortedDescending(): List<Int> {\n return copyOf().apply { sort() }.reversed()\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to their natural sort order.\n \*/\npublic fun LongArray.sortedDescending(): List<Long> {\n return copyOf().apply { sort() }.reversed()\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to their natural sort order.\n \*/\npublic fun FloatArray.sortedDescending(): List<Float> {\n return copyOf().apply { sort() }.reversed()\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to their natural sort order.\n \*/\npublic fun DoubleArray.sortedDescending(): List<Double> {\n return copyOf().apply { sort() }.reversed()\n}\n\n/\*\*\n \* Returns a list of all elements sorted descending according to their natural sort order.\n \*/\npublic fun CharArray.sortedDescending(): List<Char> {\n return copyOf().apply { sort() }.reversed()\n}\n\n/\*\*\n \* Returns a list of all elements sorted according to the specified [comparator].\n \* \n \* The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.\n \*/\npublic fun <T> Array<out T>.sortedWith(comparator: Comparator<in T>): List<T> {\n return sortedArrayWith(comparator).asList()\n}\n\n/\*\*\n \* Returns a list of all elements sorted according to the specified [comparator].\n \*/\npublic fun ByteArray.sortedWith(comparator: Comparator<in Byte>): List<Byte> {\n return toTypedArray().apply { sortWith(comparator) }.asList()\n}\n\n/\*\*\n \* Returns a list of all elements sorted according to the specified [comparator].\n \*/\npublic fun ShortArray.sortedWith(comparator: Comparator<in Short>):

`List<Short> { \n return toTypedArray().apply { sortWith(comparator) }.asList()\n }\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n * \n\npublic fun IntArray.sortedWith(comparator: Comparator<in Int>): List<Int> { \n return toTypedArray().apply { sortWith(comparator) }.asList()\n }\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n * \n\npublic fun LongArray.sortedWith(comparator: Comparator<in Long>): List<Long> { \n return toTypedArray().apply { sortWith(comparator) }.asList()\n }\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n * \n\npublic fun FloatArray.sortedWith(comparator: Comparator<in Float>): List<Float> { \n return toTypedArray().apply { sortWith(comparator) }.asList()\n }\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n * \n\npublic fun DoubleArray.sortedWith(comparator: Comparator<in Double>): List<Double> { \n return toTypedArray().apply { sortWith(comparator) }.asList()\n }\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n * \n\npublic fun BooleanArray.sortedWith(comparator: Comparator<in Boolean>): List<Boolean> { \n return toTypedArray().apply { sortWith(comparator) }.asList()\n }\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n * \n\npublic fun CharArray.sortedWith(comparator: Comparator<in Char>): List<Char> { \n return toTypedArray().apply { sortWith(comparator) }.asList()\n }\n\n/**\n * Returns a [List] that wraps the original array.\n * \n\npublic expect fun <T> Array<out T>.asList(): List<T>\n\n/**\n * Returns a [List] that wraps the original array.\n * \n\npublic expect fun ByteArray.asList(): List<Byte>\n\n/**\n * Returns a [List] that wraps the original array.\n * \n\npublic expect fun ShortArray.asList(): List<Short>\n\n/**\n * Returns a [List] that wraps the original array.\n * \n\npublic expect fun IntArray.asList(): List<Int>\n\n/**\n * Returns a [List] that wraps the original array.\n * \n\npublic expect fun LongArray.asList(): List<Long>\n\n/**\n * Returns a [List] that wraps the original array.\n * \n\npublic expect fun FloatArray.asList(): List<Float>\n\n/**\n * Returns a [List] that wraps the original array.\n * \n\npublic expect fun DoubleArray.asList(): List<Double>\n\n/**\n * Returns a [List] that wraps the original array.\n * \n\npublic expect fun BooleanArray.asList(): List<Boolean>\n\n/**\n * Returns a [List] that wraps the original array.\n * \n\npublic expect fun CharArray.asList(): List<Char>\n\n/**\n * Returns `true` if the two specified arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n\n * If two corresponding elements are nested arrays, they are also compared deeply.\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n\n * The elements of other types are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n * \n\n@SinceKotlin("1.1")\n\npublic expect infix fun <T> Array<out T>.contentDeepEquals(other: Array<out T>): Boolean\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n * \n\n * Nested arrays are treated as lists too.\n * \n\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n\n@SinceKotlin("1.1")\n\npublic expect fun <T> Array<out T>.contentDeepHashCode(): Int\n\n/**\n * Returns a string representation of the contents of this array as if it is a [List].\n * \n\n * Nested arrays are treated as lists too.\n * \n\n * If any of arrays contains itself on any nesting level that reference\n * is rendered as `"[...]"` to prevent recursion.\n * \n\n * @sample samples.collections.Arrays.ContentOperations.contentDeepToString\n * \n\n@SinceKotlin("1.1")\n\npublic expect fun <T> Array<out T>.contentDeepToString(): String\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n\n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n * \n\n@SinceKotlin("1.1")\n\npublic expect infix fun <T> Array<out T>.contentEquals(other: Array<out T>): Boolean\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n\n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n * \n\n@SinceKotlin("1.1")\n\npublic expect infix fun ShortArray.contentEquals(other: ShortArray):`

Boolean\n\n\*\*\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*/\n@SinceKotlin("1.1")\npublic expect infix fun IntArray.contentEquals(other: IntArray): Boolean\n\n\*\*\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*/\n@SinceKotlin("1.1")\npublic expect infix fun LongArray.contentEquals(other: LongArray): Boolean\n\n\*\*\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*/\n@SinceKotlin("1.1")\npublic expect infix fun FloatArray.contentEquals(other: FloatArray): Boolean\n\n\*\*\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*/\n@SinceKotlin("1.1")\npublic expect infix fun DoubleArray.contentEquals(other: DoubleArray): Boolean\n\n\*\*\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*/\n@SinceKotlin("1.1")\npublic expect infix fun BooleanArray.contentEquals(other: BooleanArray): Boolean\n\n\*\*\n \* Returns `true` if the two specified arrays are \*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n \*/\n@SinceKotlin("1.1")\npublic expect infix fun CharArray.contentEquals(other: CharArray): Boolean\n\n\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*/\n@SinceKotlin("1.1")\npublic expect fun <T> Array<out T>.contentHashCode(): Int\n\n\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*/\n@SinceKotlin("1.1")\npublic expect fun ByteArray.contentHashCode(): Int\n\n\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*/\n@SinceKotlin("1.1")\npublic expect fun ShortArray.contentHashCode(): Int\n\n\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*/\n@SinceKotlin("1.1")\npublic expect fun IntArray.contentHashCode(): Int\n\n\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*/\n@SinceKotlin("1.1")\npublic expect fun LongArray.contentHashCode(): Int\n\n\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*/\n@SinceKotlin("1.1")\npublic expect fun FloatArray.contentHashCode(): Int\n\n\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*/\n@SinceKotlin("1.1")\npublic expect fun DoubleArray.contentHashCode(): Int\n\n\*\*\n \* Returns a hash code based on the contents of this array as if it is [List].\n \*/\n@SinceKotlin("1.1")\npublic expect fun BooleanArray.contentHashCode(): Int\n\n\*\*\n \* Returns a string representation of the contents of the specified array as if it is [List].\n \*/\n@sample samples.collections.Arrays.ContentOperations.contentToString\n \*/\n@SinceKotlin("1.1")\npublic expect fun <T> Array<out T>.contentToString(): String\n\n\*\*\n \* Returns a string representation of the contents of the specified array as if it is [List].\n \*/\n@sample samples.collections.Arrays.ContentOperations.contentToString\n \*/\n@SinceKotlin("1.1")\npublic expect fun ByteArray.contentToString(): String\n\n\*\*\n \* Returns a string representation of the contents of the specified array as if it is [List].\n \*/\n@sample samples.collections.Arrays.ContentOperations.contentToString\n \*/\n@SinceKotlin("1.1")\npublic expect fun ShortArray.contentToString(): String\n\n\*\*\n \* Returns a string representation of the contents of the specified array as if it is [List].\n \*/\n@sample samples.collections.Arrays.ContentOperations.contentToString\n \*/\n@SinceKotlin("1.1")\npublic expect fun

IntArray.contentToString(): String\n\n/\*\*\n \* Returns a string representation of the contents of the specified array as if it is [List].\n \* \n \* @sample samples.collections.Arrays.ContentOperations.contentToString\n \*/\n@SinceKotlin("1.1")\npublic expect fun LongArray.contentToString(): String\n\n/\*\*\n \* Returns a string representation of the contents of the specified array as if it is [List].\n \* \n \* @sample samples.collections.Arrays.ContentOperations.contentToString\n \*/\n@SinceKotlin("1.1")\npublic expect fun FloatArray.contentToString(): String\n\n/\*\*\n \* Returns a string representation of the contents of the specified array as if it is [List].\n \* \n \* @sample samples.collections.Arrays.ContentOperations.contentToString\n \*/\n@SinceKotlin("1.1")\npublic expect fun DoubleArray.contentToString(): String\n\n/\*\*\n \* Returns a string representation of the contents of the specified array as if it is [List].\n \* \n \* @sample samples.collections.Arrays.ContentOperations.contentToString\n \*/\n@SinceKotlin("1.1")\npublic expect fun BooleanArray.contentToString(): String\n\n/\*\*\n \* Returns a string representation of the contents of the specified array as if it is [List].\n \* \n \* @sample samples.collections.Arrays.ContentOperations.contentToString\n \*/\n@SinceKotlin("1.1")\npublic expect fun CharArray.contentToString(): String\n\n/\*\*\n \* Copies this array or its subrange into the [destination] array and returns that array.\n \* \n \* It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n \* \n \* @param destination the array to copy to.\n \* @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n \* or when that index is out of the [destination] array indices range.\n \* \n \* @return the [destination] array.\n \*/\n@SinceKotlin("1.3")\npublic expect fun <T> Array<out T>.copyInto(destination: Array<T>, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): Array<T>\n\n/\*\*\n \* Copies this array or its subrange into the [destination] array and returns that array.\n \* \n \* It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n \* \n \* @param destination the array to copy to.\n \* @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n \* or when that index is out of the [destination] array indices range.\n \* \n \* @return the [destination] array.\n \*/\n@SinceKotlin("1.3")\npublic expect fun ByteArray.copyInto(destination: ByteArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ByteArray\n\n/\*\*\n \* Copies this array or its subrange into the [destination] array and returns that array.\n \* \n \* It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n \* \n \* @param destination the array to copy to.\n \* @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n \* or when that index is out of the [destination] array indices range.\n \* \n \* @return the [destination] array.\n \*/\n@SinceKotlin("1.3")\npublic expect fun ShortArray.copyInto(destination: ShortArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ShortArray\n\n/\*\*\n \* Copies this array or its subrange into the [destination] array and returns that array.\n \* \n \* It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n \* \n \* @param destination the array to copy to.\n \* @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy,

0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n \* or when that index is out of the [destination] array indices range.\n \* \n \* @return the [destination] array.\n

```

*\n@SinceKotlin("1.3")\npublic expect fun IntArray.copyInto(destination: IntArray, destinationOffset: Int = 0,
startIndex: Int = 0, endIndex: Int = size): IntArray\n\n**\n * Copies this array or its subrange into the [destination]
array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the
subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n *
@param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the
beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the
subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex
> endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array
starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n *
\n * @return the [destination] array.\n
*\n@SinceKotlin("1.3")\npublic expect fun
LongArray.copyInto(destination: LongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size):
LongArray\n\n**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's
allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the
destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the
[destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy,
0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n *
@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of
range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the
subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index
is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n
*\n@SinceKotlin("1.3")\npublic expect fun
FloatArray.copyInto(destination: FloatArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size):
FloatArray\n\n**\n * Copies this array or its subrange into the
[destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even
specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy
to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param
startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive)
of the subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex
> endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array
starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n *
\n * @return the [destination] array.\n
*\n@SinceKotlin("1.3")\npublic expect fun
DoubleArray.copyInto(destination: DoubleArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int =
size): DoubleArray\n\n**\n * Copies this array or its subrange into the [destination] array and returns that array.\n *
\n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the
destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the
[destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy,
0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * \n *
@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of
range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the
subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index
is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n
*\n@SinceKotlin("1.3")\npublic expect fun
BooleanArray.copyInto(destination: BooleanArray, destinationOffset:

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Int = 0, startIndex: Int = 0, endIndex: Int = size): BooleanArray\n\n/\*\*\n \* Copies this array or its subrange into the [destination] array and returns that array.\n \* \n \* It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n \* \n \* @param destination the array to copy to.\n \* @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n \* @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n \* @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n \* @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n \* or when that index is out of the [destination] array indices range.\n \* @return the [destination] array.\n \*/\n\n@SinceKotlin("1.3")\n\npublic expect fun CharArray.copyInto(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): CharArray\n\n/\*\*\n \* Returns new array which is a copy of the original array.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOf\n \*/\n\n@Suppress("NO\_ACTUAL\_FOR\_EXPECT")\n\npublic expect fun <T> Array<T>.copyOf(): Array<T>\n\n/\*\*\n \* Returns new array which is a copy of the original array.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOf\n \*/\n\npublic expect fun ByteArray.copyOf(): ByteArray\n\n/\*\*\n \* Returns new array which is a copy of the original array.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOf\n \*/\n\npublic expect fun ShortArray.copyOf(): ShortArray\n\n/\*\*\n \* Returns new array which is a copy of the original array.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOf\n \*/\n\npublic expect fun IntArray.copyOf(): IntArray\n\n/\*\*\n \* Returns new array which is a copy of the original array.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOf\n \*/\n\npublic expect fun LongArray.copyOf(): LongArray\n\n/\*\*\n \* Returns new array which is a copy of the original array.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOf\n \*/\n\npublic expect fun FloatArray.copyOf(): FloatArray\n\n/\*\*\n \* Returns new array which is a copy of the original array.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOf\n \*/\n\npublic expect fun DoubleArray.copyOf(): DoubleArray\n\n/\*\*\n \* Returns new array which is a copy of the original array.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.copyOf\n \*/\n\npublic expect fun BooleanArray.copyOf(): BooleanArray\n\n/\*\*\n \* Returns new array which is a copy of the original array, resized to the given [newSize].\n \* \n \* The copy is either truncated or padded at the end with zero values if necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n \*/\n\npublic expect fun ByteArray.copyOf(newSize: Int): ByteArray\n\n/\*\*\n \* Returns new array which is a copy of the original array, resized to the given [newSize].\n \* \n \* The copy is either truncated or padded at the end with zero values if necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n \* \n \* @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf\n \*/\n\npublic expect fun ShortArray.copyOf(newSize: Int): ShortArray\n\n/\*\*\n \* Returns new array which is a copy of the original array, resized to the given [newSize].\n \* \n \* The copy is either truncated or padded at the end with zero values if necessary.\n \* \n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the





(inclusive), 0 by default.\n \* @param toIndex the end of the range (exclusive), size of this array by default.\n \* \n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

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*^@SinceKotlin("1.3")\npublic expect fun BooleanArray.fill(element: Boolean, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Fills this array or its subrange with the specified [element] value.\n * \n * @param fromIndex the start of the range (inclusive), 0 by default.\n * @param toIndex the end of the range (exclusive), size of this array by default.\n * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n */\n@SinceKotlin("1.3")\npublic expect fun CharArray.fill(element: Char, fromIndex: Int = 0, toIndex: Int = size): Unit\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val <T> Array<out T>.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val ByteArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val ShortArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val IntArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val LongArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val FloatArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val DoubleArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val BooleanArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns the range of valid indices for the array.\n */\npublic val CharArray.indices: IntRange\n    get() = IntRange(0, lastIndex)\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.isEmpty(): Boolean {\n    return size == 0\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Array<out T>.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun IntArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns `true` if the array is not empty.\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.isNotEmpty(): Boolean {\n    return !isEmpty()\n}\n\n/**\n * Returns the last valid index for the

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array.  
`public val <T> Array<out T>.lastIndex: Int`  
`get() = size - 1`  
 \* Returns the last valid index for the array.  
`public val ByteArray.lastIndex: Int`  
`get() = size - 1`  
 \* Returns the last valid index for the array.  
`public val ShortArray.lastIndex: Int`  
`get() = size - 1`  
 \* Returns the last valid index for the array.  
`public val IntArray.lastIndex: Int`  
`get() = size - 1`  
 \* Returns the last valid index for the array.  
`public val LongArray.lastIndex: Int`  
`get() = size - 1`  
 \* Returns the last valid index for the array.  
`public val FloatArray.lastIndex: Int`  
`get() = size - 1`  
 \* Returns the last valid index for the array.  
`public val DoubleArray.lastIndex: Int`  
`get() = size - 1`  
 \* Returns the last valid index for the array.  
`public val BooleanArray.lastIndex: Int`  
`get() = size - 1`  
 \* Returns the last valid index for the array.  
`public val CharArray.lastIndex: Int`  
`get() = size - 1`  
 \* Returns an array containing all elements of the original array and then the given [element].  
`@Suppress("NO_ACTUAL_FOR_EXPECT")`  
`public expect operator fun <T> Array<T>.plus(element: T): Array<T>`  
 \* Returns an array containing all elements of the original array and then the given [element].  
`public expect operator fun ByteArray.plus(element: Byte): ByteArray`  
 \* Returns an array containing all elements of the original array and then the given [element].  
`public expect operator fun ShortArray.plus(element: Short): ShortArray`  
 \* Returns an array containing all elements of the original array and then the given [element].  
`public expect operator fun IntArray.plus(element: Int): IntArray`  
 \* Returns an array containing all elements of the original array and then the given [element].  
`public expect operator fun LongArray.plus(element: Long): LongArray`  
 \* Returns an array containing all elements of the original array and then the given [element].  
`public expect operator fun FloatArray.plus(element: Float): FloatArray`  
 \* Returns an array containing all elements of the original array and then the given [element].  
`public expect operator fun DoubleArray.plus(element: Double): DoubleArray`  
 \* Returns an array containing all elements of the original array and then the given [element].  
`public expect operator fun BooleanArray.plus(element: Boolean): BooleanArray`  
 \* Returns an array containing all elements of the original array and then the given [element].  
`public expect operator fun CharArray.plus(element: Char): CharArray`  
 \* Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`@Suppress("NO_ACTUAL_FOR_EXPECT")`  
`public expect operator fun <T> Array<T>.plus(elements: Collection<T>): Array<T>`  
 \* Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`public expect operator fun ByteArray.plus(elements: Collection<Byte>): ByteArray`  
 \* Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`public expect operator fun ShortArray.plus(elements: Collection<Short>): ShortArray`  
 \* Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`public expect operator fun IntArray.plus(elements: Collection<Int>): IntArray`  
 \* Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`public expect operator fun LongArray.plus(elements: Collection<Long>): LongArray`  
 \* Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`public expect operator fun FloatArray.plus(elements: Collection<Float>): FloatArray`  
 \* Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`public expect operator fun DoubleArray.plus(elements: Collection<Double>): DoubleArray`  
 \* Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`public expect operator fun BooleanArray.plus(elements: Collection<Boolean>): BooleanArray`  
 \* Returns an array containing all elements of the original array and then all elements of the given [elements] collection.  
`public expect operator fun CharArray.plus(elements: Collection<Char>): CharArray`  
 \* Returns an array containing all elements of the original array and then all elements of the given [elements] array.  
`@Suppress("NO_ACTUAL_FOR_EXPECT")`  
`public expect operator fun <T> Array<T>.plus(elements: Array<out T>): Array<T>`  
 \* Returns an array containing all elements of the original array and then all elements of the given [elements] array.  
`public expect operator fun ByteArray.plus(elements: ByteArray): ByteArray`  
 \* Returns an array containing all elements of the original array and then all elements of the

given [elements] array.\n \*/\npublic expect operator fun ShortArray.plus(elements: ShortArray): ShortArray\n\n\*/\n \* Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n \*/\npublic expect operator fun IntArray.plus(elements: IntArray): IntArray\n\n\*/\n \* Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n\n \*/\npublic expect operator fun LongArray.plus(elements: LongArray): LongArray\n\n\*/\n \* Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n\n \*/\npublic expect operator fun FloatArray.plus(elements: FloatArray): FloatArray\n\n\*/\n \* Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n\n \*/\npublic expect operator fun DoubleArray.plus(elements: DoubleArray): DoubleArray\n\n\*/\n \* Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n\n \*/\npublic expect operator fun BooleanArray.plus(elements: BooleanArray): BooleanArray\n\n\*/\n \* Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n\n \*/\npublic expect operator fun CharArray.plus(elements: CharArray): CharArray\n\n\n\*/\n \* Returns an array containing all elements of the original array and then the given [element].\n\n \*/\n@Suppress("NO\_ACTUAL\_FOR\_EXPECT")\npublic expect fun <T> Array<T>.plusElement(element: T): Array<T>\n\n\n\*/\n \* Sorts the array in-place.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArray\n\n \*/\npublic expect fun IntArray.sort(): Unit\n\n\n\*/\n \* Sorts the array in-place.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArray\n\n \*/\npublic expect fun LongArray.sort(): Unit\n\n\n\*/\n \* Sorts the array in-place.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArray\n\n \*/\npublic expect fun ByteArray.sort(): Unit\n\n\n\*/\n \* Sorts the array in-place.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArray\n\n \*/\npublic expect fun ShortArray.sort(): Unit\n\n\n\*/\n \* Sorts the array in-place.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArray\n\n \*/\npublic expect fun DoubleArray.sort(): Unit\n\n\n\*/\n \* Sorts the array in-place.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArray\n\n \*/\npublic expect fun FloatArray.sort(): Unit\n\n\n\*/\n \* Sorts the array in-place.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArray\n\n \*/\npublic expect fun CharArray.sort(): Unit\n\n\n\*/\n \* Sorts the array in-place according to the natural order of its elements.\n \* \n \* The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.\n \* \n \* @sample samples.collections.Arrays.Sorting.sortArrayOfComparable\n\n \*/\npublic expect fun <T> Comparable<T>> Array<out T>.sort(): Unit\n\n\n\*/\n \* Sorts the array in-place according to the order specified by the given [comparator].\n \* \n \* The sort is `_stable_`. It means that equal elements preserve their order relative to each other after sorting.\n\n \*/\npublic expect fun <T> Array<out T>.sortWith(comparator: Comparator<in T>): Unit\n\n\n\*/\n \* Returns an array of Boolean containing all of the elements of this generic array.\n\n \*/\npublic fun Array<out Boolean>.toBooleanArray(): BooleanArray {\n return BooleanArray(size) { index -> this[index] }\n}\n\n\n\*/\n \* Returns an array of Byte containing all of the elements of this generic array.\n\n \*/\npublic fun Array<out Byte>.toByteArray(): ByteArray {\n return ByteArray(size) { index -> this[index] }\n}\n\n\n\*/\n \* Returns an array of Char containing all of the elements of this generic array.\n\n \*/\npublic fun Array<out Char>.toCharArray(): CharArray {\n return CharArray(size) { index -> this[index] }\n}\n\n\n\*/\n \* Returns an array of Double containing all of the elements of this generic array.\n\n \*/\npublic fun Array<out Double>.toDoubleArray(): DoubleArray {\n return DoubleArray(size) { index -> this[index] }\n}\n\n\n\*/\n \* Returns an array of Float containing all of the elements of this generic array.\n\n \*/\npublic fun Array<out Float>.toFloatArray(): FloatArray {\n return FloatArray(size) { index -> this[index] }\n}\n\n\n\*/\n \* Returns an array of Int containing all of the elements of this generic array.\n\n \*/\npublic fun Array<out Int>.toIntArray(): IntArray {\n return IntArray(size) { index -> this[index] }\n}\n\n\n\*/\n \* Returns an array of Long containing all of the elements of this generic array.\n\n \*/\npublic fun Array<out Long>.toLongArray(): LongArray {\n return LongArray(size) { index -> this[index] }\n}\n\n\n\*/\n \* Returns an array of Short containing all of the elements of this generic array.\n\n \*/\npublic fun Array<out Short>.toShortArray(): ShortArray {\n return ShortArray(size) { index -> this[index] }\n}\n\n\n\*/\n \* Returns a *typed* object array containing all of the elements of this primitive array.\n\n \*/\npublic expect fun ByteArray.toTypedArray(): Array<Byte>\n\n\n\*/\n \* Returns a *typed* object array containing all of the elements of this primitive array.\n\n \*/\npublic expect fun ShortArray.toTypedArray():



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mapCapacity(size).coerceAtLeast(16)\n return associateTo(LinkedHashMap<K, V>(capacity),
transform)\n}\n\n/**\n * Returns a [Map] containing key-value pairs provided by [transform] function\n * applied to
elements of the given array.\n * \n * If any of two pairs would have the same key the last one gets added to the
map.\n * \n * The returned map preserves the entry iteration order of the original array.\n */\npublic inline fun <K,
V> CharArray.associate(transform: (Char) -> Pair<K, V>): Map<K, V> {\n val capacity =
mapCapacity(size).coerceAtLeast(16)\n return associateTo(LinkedHashMap<K, V>(capacity),
transform)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n */\npublic inline fun <T, K> Array<out T>.associateBy(keySelector: (T) -> K):
Map<K, T> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n return
associateByTo(LinkedHashMap<K, T>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the
elements from the given array indexed by the key\n * returned from [keySelector] function applied to each
element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to
the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n */\npublic inline fun
<K> ByteArray.associateBy(keySelector: (Byte) -> K): Map<K, Byte> {\n val capacity =
mapCapacity(size).coerceAtLeast(16)\n return associateByTo(LinkedHashMap<K, Byte>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n */\npublic inline fun <K> ShortArray.associateBy(keySelector: (Short) -> K): Map<K,
Short> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n return associateByTo(LinkedHashMap<K,
Short>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed
by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would
have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves
the entry iteration order of the original array.\n */\npublic inline fun <K> IntArray.associateBy(keySelector: (Int) ->
K): Map<K, Int> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n return
associateByTo(LinkedHashMap<K, Int>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the
elements from the given array indexed by the key\n * returned from [keySelector] function applied to each
element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to
the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n */\npublic inline fun
<K> LongArray.associateBy(keySelector: (Long) -> K): Map<K, Long> {\n val capacity =
mapCapacity(size).coerceAtLeast(16)\n return associateByTo(LinkedHashMap<K, Long>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n */\npublic inline fun <K> FloatArray.associateBy(keySelector: (Float) -> K): Map<K,
Float> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n return associateByTo(LinkedHashMap<K,
Float>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed
by the key\n * returned from [keySelector] function applied to each element.\n * \n * If any two elements would
have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves
the entry iteration order of the original array.\n */\npublic inline fun <K> DoubleArray.associateBy(keySelector:
(Double) -> K): Map<K, Double> {\n val capacity = mapCapacity(size).coerceAtLeast(16)\n return
associateByTo(LinkedHashMap<K, Double>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the
elements from the given array indexed by the key\n * returned from [keySelector] function applied to each
element.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets added to
the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n */\npublic inline fun
<K> BooleanArray.associateBy(keySelector: (Boolean) -> K): Map<K, Boolean> {\n val capacity =

```

```

mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, Boolean>(capacity),
keySelector)\n}\n\n/**\n * Returns a [Map] containing the elements from the given array indexed by the key\n *
returned from [keySelector] function applied to each element.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n */\npublic inline fun <K> CharArray.associateBy(keySelector: (Char) -> K): Map<K,
Char> {\n  val capacity = mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K,
Char>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform]
and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would
have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves
the entry iteration order of the original array.\n */\npublic inline fun <T, K, V> Array<out
T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, V>(capacity), keySelector,
valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by
[keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n */\npublic inline fun <K, V> ByteArray.associateBy(keySelector: (Byte) -> K,
valueTransform: (Byte) -> V): Map<K, V> {\n  val capacity = mapCapacity(size).coerceAtLeast(16)\n  return
associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map]
containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of
the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets
added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n */\npublic
inline fun <K, V> ShortArray.associateBy(keySelector: (Short) -> K, valueTransform: (Short) -> V): Map<K, V>
{\n  val capacity = mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K,
V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by
[valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two
elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The
returned map preserves the entry iteration order of the original array.\n */\npublic inline fun <K, V>
IntArray.associateBy(keySelector: (Int) -> K, valueTransform: (Int) -> V): Map<K, V> {\n  val capacity =
mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, V>(capacity), keySelector,
valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and indexed by
[keySelector] functions applied to elements of the given array.\n * \n * If any two elements would have the same key
returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves the entry iteration
order of the original array.\n */\npublic inline fun <K, V> LongArray.associateBy(keySelector: (Long) -> K,
valueTransform: (Long) -> V): Map<K, V> {\n  val capacity = mapCapacity(size).coerceAtLeast(16)\n  return
associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map]
containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of
the given array.\n * \n * If any two elements would have the same key returned by [keySelector] the last one gets
added to the map.\n * \n * The returned map preserves the entry iteration order of the original array.\n */\npublic
inline fun <K, V> FloatArray.associateBy(keySelector: (Float) -> K, valueTransform: (Float) -> V): Map<K, V>
{\n  val capacity = mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K,
V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by
[valueTransform] and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two
elements would have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The
returned map preserves the entry iteration order of the original array.\n */\npublic inline fun <K, V>
DoubleArray.associateBy(keySelector: (Double) -> K, valueTransform: (Double) -> V): Map<K, V> {\n  val
capacity = mapCapacity(size).coerceAtLeast(16)\n  return associateByTo(LinkedHashMap<K, V>(capacity),
keySelector, valueTransform)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform]
and indexed by [keySelector] functions applied to elements of the given array.\n * \n * If any two elements would

```

have the same key returned by [keySelector] the last one gets added to the map.

```

    * The returned map preserves the entry iteration order of the original array.
    * public inline fun <K, V> BooleanArray.associateBy(keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): Map<K, V> {
    *     val capacity = mapCapacity(size).coerceAtLeast(16)
    *     return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)
    * }
    * Returns a [Map] containing the values provided by [valueTransform] and indexed by [keySelector] functions applied to elements of the given array.
    * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.
    * The returned map preserves the entry iteration order of the original array.
    * public inline fun <K, V> CharArray.associateBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, V> {
    *     val capacity = mapCapacity(size).coerceAtLeast(16)
    *     return associateByTo(LinkedHashMap<K, V>(capacity), keySelector, valueTransform)
    * }
    * Populates and returns the [destination] mutable map with key-value pairs,
    * where key is provided by the [keySelector] function applied to each element of the given array
    * and value is the element itself.
    * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.
    * public inline fun <T, K, M : MutableMap<in K, in T>> Array<out T>.associateByTo(destination: M, keySelector: (T) -> K): M {
    *     for (element in this) {
    *         destination.put(keySelector(element), element)
    *     }
    *     return destination
    * }
    * Populates and returns the [destination] mutable map with key-value pairs,
    * where key is provided by the [keySelector] function applied to each element of the given array
    * and value is the element itself.
    * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.
    * public inline fun <K, M : MutableMap<in K, in Byte>> ByteArray.associateByTo(destination: M, keySelector: (Byte) -> K): M {
    *     for (element in this) {
    *         destination.put(keySelector(element), element)
    *     }
    *     return destination
    * }
    * Populates and returns the [destination] mutable map with key-value pairs,
    * where key is provided by the [keySelector] function applied to each element of the given array
    * and value is the element itself.
    * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.
    * public inline fun <K, M : MutableMap<in K, in Short>> ShortArray.associateByTo(destination: M, keySelector: (Short) -> K): M {
    *     for (element in this) {
    *         destination.put(keySelector(element), element)
    *     }
    *     return destination
    * }
    * Populates and returns the [destination] mutable map with key-value pairs,
    * where key is provided by the [keySelector] function applied to each element of the given array
    * and value is the element itself.
    * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.
    * public inline fun <K, M : MutableMap<in K, in Int>> IntArray.associateByTo(destination: M, keySelector: (Int) -> K): M {
    *     for (element in this) {
    *         destination.put(keySelector(element), element)
    *     }
    *     return destination
    * }
    * Populates and returns the [destination] mutable map with key-value pairs,
    * where key is provided by the [keySelector] function applied to each element of the given array
    * and value is the element itself.
    * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.
    * public inline fun <K, M : MutableMap<in K, in Long>> LongArray.associateByTo(destination: M, keySelector: (Long) -> K): M {
    *     for (element in this) {
    *         destination.put(keySelector(element), element)
    *     }
    *     return destination
    * }
    * Populates and returns the [destination] mutable map with key-value pairs,
    * where key is provided by the [keySelector] function applied to each element of the given array
    * and value is the element itself.
    * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.
    * public inline fun <K, M : MutableMap<in K, in Float>> FloatArray.associateByTo(destination: M, keySelector: (Float) -> K): M {
    *     for (element in this) {
    *         destination.put(keySelector(element), element)
    *     }
    *     return destination
    * }
    * Populates and returns the [destination] mutable map with key-value pairs,
    * where key is provided by the [keySelector] function applied to each element of the given array
    * and value is the element itself.
    * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.
    * public inline fun <K, M : MutableMap<in K, in Double>> DoubleArray.associateByTo(destination: M, keySelector: (Double) -> K): M {
    *     for (element in this) {
    *         destination.put(keySelector(element), element)
    *     }
    *     return destination
    * }
    * Populates and returns the [destination] mutable map with key-value pairs,
    * where key is provided by the [keySelector] function applied to each element of the given array
    * and value is the element itself.
    * If any two elements would
  
```

have the same key returned by [keySelector] the last one gets added to the map.

```

public inline fun <K, M : MutableMap<in K, in Boolean>> BooleanArray.associateByTo(destination: M, keySelector: (Boolean) -> K): M {
    for (element in this) {
        destination.put(keySelector(element), element)
    }
    return destination
}

```

\* Populates and returns the [destination] mutable map with key-value pairs, where key is provided by the [keySelector] function applied to each element of the given array and value is the element itself. If any two elements would have the same key returned by [keySelector] the last one gets added to the map.

```

public inline fun <K, M : MutableMap<in K, in Char>> CharArray.associateByTo(destination: M, keySelector: (Char) -> K): M {
    for (element in this) {
        destination.put(keySelector(element), element)
    }
    return destination
}

```

\* Populates and returns the [destination] mutable map with key-value pairs, where key is provided by the [keySelector] function and value is provided by the [valueTransform] function applied to elements of the given array. If any two elements would have the same key returned by [keySelector] the last one gets added to the map.

```

public inline fun <T, K, V, M : MutableMap<in K, in V>> Array<out T>.associateByTo(destination: M, keySelector: (T) -> K, valueTransform: (T) -> V): M {
    for (element in this) {
        destination.put(keySelector(element), valueTransform(element))
    }
    return destination
}

```

\* Populates and returns the [destination] mutable map with key-value pairs, where key is provided by the [keySelector] function and value is provided by the [valueTransform] function applied to elements of the given array. If any two elements would have the same key returned by [keySelector] the last one gets added to the map.

```

public inline fun <K, V, M : MutableMap<in K, in V>> ByteArray.associateByTo(destination: M, keySelector: (Byte) -> K, valueTransform: (Byte) -> V): M {
    for (element in this) {
        destination.put(keySelector(element), valueTransform(element))
    }
    return destination
}

```

\* Populates and returns the [destination] mutable map with key-value pairs, where key is provided by the [keySelector] function and value is provided by the [valueTransform] function applied to elements of the given array. If any two elements would have the same key returned by [keySelector] the last one gets added to the map.

```

public inline fun <K, V, M : MutableMap<in K, in V>> ShortArray.associateByTo(destination: M, keySelector: (Short) -> K, valueTransform: (Short) -> V): M {
    for (element in this) {
        destination.put(keySelector(element), valueTransform(element))
    }
    return destination
}

```

\* Populates and returns the [destination] mutable map with key-value pairs, where key is provided by the [keySelector] function and value is provided by the [valueTransform] function applied to elements of the given array. If any two elements would have the same key returned by [keySelector] the last one gets added to the map.

```

public inline fun <K, V, M : MutableMap<in K, in V>> IntArray.associateByTo(destination: M, keySelector: (Int) -> K, valueTransform: (Int) -> V): M {
    for (element in this) {
        destination.put(keySelector(element), valueTransform(element))
    }
    return destination
}

```

\* Populates and returns the [destination] mutable map with key-value pairs, where key is provided by the [keySelector] function and value is provided by the [valueTransform] function applied to elements of the given array. If any two elements would have the same key returned by [keySelector] the last one gets added to the map.

```

public inline fun <K, V, M : MutableMap<in K, in V>> LongArray.associateByTo(destination: M, keySelector: (Long) -> K, valueTransform: (Long) -> V): M {
    for (element in this) {
        destination.put(keySelector(element), valueTransform(element))
    }
    return destination
}

```

\* Populates and returns the [destination] mutable map with key-value pairs, where key is provided by the [keySelector] function and value is provided by the [valueTransform] function applied to elements of the given array. If any two elements would have the same key returned by [keySelector] the last one gets added to the map.

```

public inline fun <K, V, M : MutableMap<in K, in V>> FloatArray.associateByTo(destination: M, keySelector: (Float) -> K, valueTransform: (Float) -> V): M {
    for (element in this) {
        destination.put(keySelector(element), valueTransform(element))
    }
    return destination
}

```

\* Populates and returns the [destination] mutable map with key-value pairs, where key is provided by the [keySelector] function and value is provided by the [valueTransform] function applied to elements of the given array. If any two elements would have the same key returned by [keySelector] the last one gets added to the map.

```

public inline fun <K, V, M : MutableMap<in K, in V>> DoubleArray.associateByTo(destination: M, keySelector: (Double) -> K,

```

```

valueTransform: (Double) -> V): M {
  for (element in this) {
    destination.put(keySelector(element),
valueTransform(element))
  }
  return destination
}
Populates and returns the [destination] mutable
map with key-value pairs,
* where key is provided by the [keySelector] function and
* and value is provided by
the [valueTransform] function applied to elements of the given array.
* If any two elements would have the
same key returned by [keySelector] the last one gets added to the map.
public inline fun <K, V, M :
MutableMap<in K, in V>> BooleanArray.associateByTo(destination: M, keySelector: (Boolean) -> K,
valueTransform: (Boolean) -> V): M {
  for (element in this) {
    destination.put(keySelector(element),
valueTransform(element))
  }
  return destination
}
Populates and returns the [destination] mutable
map with key-value pairs,
* where key is provided by the [keySelector] function and
* and value is provided by
the [valueTransform] function applied to elements of the given array.
* If any two elements would have the
same key returned by [keySelector] the last one gets added to the map.
public inline fun <K, V, M :
MutableMap<in K, in V>> CharArray.associateByTo(destination: M, keySelector: (Char) -> K, valueTransform:
(Char) -> V): M {
  for (element in this) {
    destination.put(keySelector(element),
valueTransform(element))
  }
  return destination
}
Populates and returns the [destination] mutable
map with key-value pairs
* provided by [transform] function applied to each element of the given array.
* If any of two pairs would have the same key the last one gets added to the map.
public inline fun <T, K, V, M :
MutableMap<in K, in V>> Array<out T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {
  for
(element in this) {
    destination += transform(element)
  }
  return destination
}
Populates and
returns the [destination] mutable map with key-value pairs
* provided by [transform] function applied to each
element of the given array.
* If any of two pairs would have the same key the last one gets added to the
map.
public inline fun <K, V, M : MutableMap<in K, in V>> ByteArray.associateTo(destination: M,
transform: (Byte) -> Pair<K, V>): M {
  for (element in this) {
    destination += transform(element)
  }
  return destination
}
Populates and returns the [destination] mutable map with key-value pairs
*
provided by [transform] function applied to each element of the given array.
* If any of two pairs would have
the same key the last one gets added to the map.
public inline fun <K, V, M : MutableMap<in K, in V>>
ShortArray.associateTo(destination: M, transform: (Short) -> Pair<K, V>): M {
  for (element in this) {
    destination += transform(element)
  }
  return destination
}
Populates and returns the [destination]
mutable map with key-value pairs
* provided by [transform] function applied to each element of the given array.
* If any of two pairs would have the same key the last one gets added to the map.
public inline fun <K, V,
M : MutableMap<in K, in V>> IntArray.associateTo(destination: M, transform: (Int) -> Pair<K, V>): M {
  for
(element in this) {
    destination += transform(element)
  }
  return destination
}
Populates and
returns the [destination] mutable map with key-value pairs
* provided by [transform] function applied to each
element of the given array.
* If any of two pairs would have the same key the last one gets added to the
map.
public inline fun <K, V, M : MutableMap<in K, in V>> LongArray.associateTo(destination: M,
transform: (Long) -> Pair<K, V>): M {
  for (element in this) {
    destination += transform(element)
  }
  return destination
}
Populates and returns the [destination] mutable map with key-value pairs
*
provided by [transform] function applied to each element of the given array.
* If any of two pairs would have
the same key the last one gets added to the map.
public inline fun <K, V, M : MutableMap<in K, in V>>
FloatArray.associateTo(destination: M, transform: (Float) -> Pair<K, V>): M {
  for (element in this) {
    destination += transform(element)
  }
  return destination
}
Populates and returns the [destination]
mutable map with key-value pairs
* provided by [transform] function applied to each element of the given array.
* If any of two pairs would have the same key the last one gets added to the map.
public inline fun <K, V,
M : MutableMap<in K, in V>> DoubleArray.associateTo(destination: M, transform: (Double) -> Pair<K, V>): M
{
  for (element in this) {
    destination += transform(element)
  }
  return destination
}
Populates and returns the [destination] mutable map with key-value pairs
* provided by [transform] function
applied to each element of the given array.
* If any of two pairs would have the same key the last one gets
added to the map.
public inline fun <K, V, M : MutableMap<in K, in V>>
BooleanArray.associateTo(destination: M, transform: (Boolean) -> Pair<K, V>): M {
  for (element in this) {

```

```

destination += transform(element)\n } return destination\n\n\n * Populates and returns the [destination]
mutable map with key-value pairs\n * provided by [transform] function applied to each element of the given array.\n
 * \n * If any of two pairs would have the same key the last one gets added to the map.\n */\npublic inline fun <K, V,
M : MutableMap<in K, in V>> CharArray.associateTo(destination: M, transform: (Char) -> Pair<K, V>): M {\n
for (element in this) {\n destination += transform(element)\n } return destination\n\n\n * Appends
all elements to the given [destination] collection.\n */\npublic fun <T, C : MutableCollection<in T>> Array<out
T>.toCollection(destination: C): C {\n for (item in this) {\n destination.add(item)\n } return
destination\n\n\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C :
MutableCollection<in Byte>> ByteArray.toCollection(destination: C): C {\n for (item in this) {\n
destination.add(item)\n } return destination\n\n\n * Appends all elements to the given [destination]
collection.\n */\npublic fun <C : MutableCollection<in Short>> ShortArray.toCollection(destination: C): C {\n for
(item in this) {\n destination.add(item)\n } return destination\n\n\n * Appends all elements to the
given [destination] collection.\n */\npublic fun <C : MutableCollection<in Int>> IntArray.toCollection(destination:
C): C {\n for (item in this) {\n destination.add(item)\n } return destination\n\n\n * Appends all
elements to the given [destination] collection.\n */\npublic fun <C : MutableCollection<in Long>>
LongArray.toCollection(destination: C): C {\n for (item in this) {\n destination.add(item)\n } return
destination\n\n\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C :
MutableCollection<in Float>> FloatArray.toCollection(destination: C): C {\n for (item in this) {\n
destination.add(item)\n } return destination\n\n\n * Appends all elements to the given [destination]
collection.\n */\npublic fun <C : MutableCollection<in Double>> DoubleArray.toCollection(destination: C): C {\n
for (item in this) {\n destination.add(item)\n } return destination\n\n\n * Appends all elements to the
given [destination] collection.\n */\npublic fun <C : MutableCollection<in Boolean>>
BooleanArray.toCollection(destination: C): C {\n for (item in this) {\n destination.add(item)\n } return
destination\n\n\n * Appends all elements to the given [destination] collection.\n */\npublic fun <C :
MutableCollection<in Char>> CharArray.toCollection(destination: C): C {\n for (item in this) {\n
destination.add(item)\n } return destination\n\n\n * Returns a [HashSet] of all elements.\n */\npublic fun
<T> Array<out T>.toHashSet(): HashSet<T> {\n return
toCollection(HashSet<T>(mapCapacity(size)))\n\n\n * Returns a [HashSet] of all elements.\n */\npublic fun
ByteArray.toHashSet(): HashSet<Byte> {\n return toCollection(HashSet<Byte>(mapCapacity(size)))\n\n\n *
Returns a [HashSet] of all elements.\n */\npublic fun ShortArray.toHashSet(): HashSet<Short> {\n return
toCollection(HashSet<Short>(mapCapacity(size)))\n\n\n * Returns a [HashSet] of all elements.\n */\npublic
fun IntArray.toHashSet(): HashSet<Int> {\n return toCollection(HashSet<Int>(mapCapacity(size)))\n\n\n *
Returns a [HashSet] of all elements.\n */\npublic fun LongArray.toHashSet(): HashSet<Long> {\n return
toCollection(HashSet<Long>(mapCapacity(size)))\n\n\n * Returns a [HashSet] of all elements.\n */\npublic
fun FloatArray.toHashSet(): HashSet<Float> {\n return
toCollection(HashSet<Float>(mapCapacity(size)))\n\n\n * Returns a [HashSet] of all elements.\n */\npublic
fun DoubleArray.toHashSet(): HashSet<Double> {\n return
toCollection(HashSet<Double>(mapCapacity(size)))\n\n\n * Returns a [HashSet] of all elements.\n */\npublic
fun BooleanArray.toHashSet(): HashSet<Boolean> {\n return
toCollection(HashSet<Boolean>(mapCapacity(size)))\n\n\n * Returns a [HashSet] of all elements.\n\n
*/\npublic fun CharArray.toHashSet(): HashSet<Char> {\n return
toCollection(HashSet<Char>(mapCapacity(size)))\n\n\n * Returns a [List] containing all elements.\n\n
*/\npublic fun <T> Array<out T>.toList(): List<T> {\n return when (size) {\n 0 -> emptyList()\n 1 ->
listOf(this[0])\n else -> this.toMutableList()\n } }\n\n\n * Returns a [List] containing all elements.\n\n
*/\npublic fun ByteArray.toList(): List<Byte> {\n return when (size) {\n 0 -> emptyList()\n 1 ->
listOf(this[0])\n else -> this.toMutableList()\n } }\n\n\n * Returns a [List] containing all elements.\n\n
*/\npublic fun ShortArray.toList(): List<Short> {\n return when (size) {\n 0 -> emptyList()\n 1 ->
listOf(this[0])\n else -> this.toMutableList()\n } }\n\n\n * Returns a [List] containing all elements.\n

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*\npublic fun IntArray.toList(): List<Int> {\n    return when (size) {\n        0 -> emptyList()\n        1 ->
listOf(this[0])\n        else -> this.toMutableList()\n    }\n}\n\n/**\n * Returns a [List] containing all elements.\n */
*\npublic fun LongArray.toList(): List<Long> {\n    return when (size) {\n        0 -> emptyList()\n        1 ->
listOf(this[0])\n        else -> this.toMutableList()\n    }\n}\n\n/**\n * Returns a [List] containing all elements.\n */
*\npublic fun FloatArray.toList(): List<Float> {\n    return when (size) {\n        0 -> emptyList()\n        1 ->
listOf(this[0])\n        else -> this.toMutableList()\n    }\n}\n\n/**\n * Returns a [List] containing all elements.\n */
*\npublic fun DoubleArray.toList(): List<Double> {\n    return when (size) {\n        0 -> emptyList()\n        1 ->
listOf(this[0])\n        else -> this.toMutableList()\n    }\n}\n\n/**\n * Returns a [List] containing all elements.\n */
*\npublic fun BooleanArray.toList(): List<Boolean> {\n    return when (size) {\n        0 -> emptyList()\n        1 ->
listOf(this[0])\n        else -> this.toMutableList()\n    }\n}\n\n/**\n * Returns a [List] containing all elements.\n */
*\npublic fun CharArray.toList(): List<Char> {\n    return when (size) {\n        0 -> emptyList()\n        1 ->
listOf(this[0])\n        else -> this.toMutableList()\n    }\n}\n\n/**\n * Returns a [MutableList] filled with all elements
of this array.\n */
*\npublic fun <T> Array<out T>.toMutableList(): MutableList<T> {\n    return
ArrayList(this.asCollection())\n}\n\n/**\n * Returns a [MutableList] filled with all elements of this array.\n */
*\npublic fun ByteArray.toMutableList(): MutableList<Byte> {\n    val list = ArrayList<Byte>(size)\n    for (item
in this) list.add(item)\n    return list\n}\n\n/**\n * Returns a [MutableList] filled with all elements of this array.\n */
*\npublic fun ShortArray.toMutableList(): MutableList<Short> {\n    val list = ArrayList<Short>(size)\n    for (item
in this) list.add(item)\n    return list\n}\n\n/**\n * Returns a [MutableList] filled with all elements of this array.\n */
*\npublic fun IntArray.toMutableList(): MutableList<Int> {\n    val list = ArrayList<Int>(size)\n    for (item in this)
list.add(item)\n    return list\n}\n\n/**\n * Returns a [MutableList] filled with all elements of this array.\n */
*\npublic fun LongArray.toMutableList(): MutableList<Long> {\n    val list = ArrayList<Long>(size)\n    for (item in this)
list.add(item)\n    return list\n}\n\n/**\n * Returns a [MutableList] filled with all elements of this array.\n */
*\npublic fun FloatArray.toMutableList(): MutableList<Float> {\n    val list = ArrayList<Float>(size)\n    for (item in this)
list.add(item)\n    return list\n}\n\n/**\n * Returns a [MutableList] filled with all elements of this array.\n */
*\npublic fun DoubleArray.toMutableList(): MutableList<Double> {\n    val list = ArrayList<Double>(size)\n    for (item in
this) list.add(item)\n    return list\n}\n\n/**\n * Returns a [MutableList] filled with all elements of this array.\n */
*\npublic fun BooleanArray.toMutableList(): MutableList<Boolean> {\n    val list = ArrayList<Boolean>(size)\n    for (item in
this) list.add(item)\n    return list\n}\n\n/**\n * Returns a [MutableList] filled with all elements of this
array.\n */
*\npublic fun CharArray.toMutableList(): MutableList<Char> {\n    val list = ArrayList<Char>(size)\n    for (item in
this) list.add(item)\n    return list\n}\n\n/**\n * Returns a [Set] of all elements.\n */\n\n * The returned set
preserves the element iteration order of the original array.\n */
*\npublic fun <T> Array<out T>.toSet(): Set<T> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n        else ->
toCollection(LinkedHashSet<T>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a [Set] of all elements.\n */\n\n *
The returned set preserves the element iteration order of the original array.\n */
*\npublic fun ByteArray.toSet():
Set<Byte> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n        else ->
toCollection(LinkedHashSet<Byte>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a [Set] of all elements.\n */\n\n *
The returned set preserves the element iteration order of the original array.\n */
*\npublic fun ShortArray.toSet():
Set<Short> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n        else ->
toCollection(LinkedHashSet<Short>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a [Set] of all elements.\n */\n\n *
The returned set preserves the element iteration order of the original array.\n */
*\npublic fun IntArray.toSet():
Set<Int> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n        else ->
toCollection(LinkedHashSet<Int>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a [Set] of all elements.\n */\n\n *
The returned set preserves the element iteration order of the original array.\n */
*\npublic fun LongArray.toSet():
Set<Long> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n        else ->
toCollection(LinkedHashSet<Long>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a [Set] of all elements.\n */\n\n *
The returned set preserves the element iteration order of the original array.\n */
*\npublic fun FloatArray.toSet():
Set<Float> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n        else ->
toCollection(LinkedHashSet<Float>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a [Set] of all elements.\n */\n\n *

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* The returned set preserves the element iteration order of the original array.\n */\npublic fun DoubleArray.toSet():
Set<Double> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n        else ->
toCollection(LinkedHashSet<Double>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a [Set] of all elements.\n */\n * The returned set preserves the element iteration order of the original array.\n */\npublic fun
BooleanArray.toSet(): Set<Boolean> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n
else -> toCollection(LinkedHashSet<Boolean>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a [Set] of all
elements.\n */\n * The returned set preserves the element iteration order of the original array.\n */\npublic fun
CharArray.toSet(): Set<Char> {\n    return when (size) {\n        0 -> emptySet()\n        1 -> setOf(this[0])\n        else -
-> toCollection(LinkedHashSet<Char>(mapCapacity(size)))\n    }\n}\n\n/**\n * Returns a single list of all elements
yielded from results of [transform] function being invoked on each element of original array.\n */\npublic inline fun
<T, R> Array<out T>.flatMap(transform: (T) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n */\npublic inline fun <R> ByteArray.flatMap(transform: (Byte) ->
Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all
elements yielded from results of [transform] function being invoked on each element of original array.\n */\npublic
inline fun <R> ShortArray.flatMap(transform: (Short) -> Iterable<R>): List<R> {\n    return
flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of
[transform] function being invoked on each element of original array.\n */\npublic inline fun <R>
IntArray.flatMap(transform: (Int) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n */\npublic inline fun <R> LongArray.flatMap(transform: (Long) ->
Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all
elements yielded from results of [transform] function being invoked on each element of original array.\n */\npublic
inline fun <R> FloatArray.flatMap(transform: (Float) -> Iterable<R>): List<R> {\n    return
flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of
[transform] function being invoked on each element of original array.\n */\npublic inline fun <R>
DoubleArray.flatMap(transform: (Double) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n */\npublic inline fun <R> BooleanArray.flatMap(transform: (Boolean)
-> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Returns a single list of
all elements yielded from results of [transform] function being invoked on each element of original array.\n */\n
public inline fun <R> CharArray.flatMap(transform: (Char) -> Iterable<R>): List<R> {\n    return
flatMapTo(ArrayList<R>(), transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform]
function being invoked on each element of original array, to the given [destination].\n */\npublic inline fun <T, R, C
: MutableCollection<in R>> Array<out T>.flatMapTo(destination: C, transform: (T) -> Iterable<R>): C {\n    for
(element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return
destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element of original array, to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>>
ByteArray.flatMapTo(destination: C, transform: (Byte) -> Iterable<R>): C {\n    for (element in this) {\n        val list
= transform(element)\n        destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements
yielded from results of [transform] function being invoked on each element of original array, to the given
[destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> ShortArray.flatMapTo(destination: C,
transform: (Short) -> Iterable<R>): C {\n    for (element in this) {\n        val list = transform(element)\n
destination.addAll(list)\n    }\n    return destination\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element of original array, to the given [destination].\n */\npublic inline
fun <R, C : MutableCollection<in R>> IntArray.flatMapTo(destination: C, transform: (Int) -> Iterable<R>): C {\n
    for (element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return
destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each

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element of original array, to the given [destination].\n *\npublic inline fun <R, C : MutableCollection<in R>>
LongArray.flatMapTo(destination: C, transform: (Long) -> Iterable<R>): C {\n for (element in this) {\n val
list = transform(element)\n destination.addAll(list)\n }\n return destination\n}\n\n/**\n * Appends all
elements yielded from results of [transform] function being invoked on each element of original array, to the given
[destination].\n *\npublic inline fun <R, C : MutableCollection<in R>> FloatArray.flatMapTo(destination: C,
transform: (Float) -> Iterable<R>): C {\n for (element in this) {\n val list = transform(element)\n
destination.addAll(list)\n }\n return destination\n}\n\n/**\n * Appends all elements yielded from results of
[transform] function being invoked on each element of original array, to the given [destination].\n *\npublic inline
fun <R, C : MutableCollection<in R>> DoubleArray.flatMapTo(destination: C, transform: (Double) ->
Iterable<R>): C {\n for (element in this) {\n val list = transform(element)\n destination.addAll(list)\n
}\n return destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being
invoked on each element of original array, to the given [destination].\n *\npublic inline fun <R, C :
MutableCollection<in R>> BooleanArray.flatMapTo(destination: C, transform: (Boolean) -> Iterable<R>): C {\n
for (element in this) {\n val list = transform(element)\n destination.addAll(list)\n }\n return
destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element of original array, to the given [destination].\n *\npublic inline fun <R, C : MutableCollection<in R>>
CharArray.flatMapTo(destination: C, transform: (Char) -> Iterable<R>): C {\n for (element in this) {\n val list
= transform(element)\n destination.addAll(list)\n }\n return destination\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n *\npublic inline fun <T, K> Array<out
T>.groupBy(keySelector: (T) -> K): Map<K, List<T>> {\n return groupByTo(LinkedHashMap<K,
MutableList<T>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the
given [keySelector] function\n * applied to each element and returns a map where each group key is associated with
a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced
from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n *\npublic
inline fun <K> ByteArray.groupBy(keySelector: (Byte) -> K): Map<K, List<Byte>> {\n return
groupByTo(LinkedHashMap<K, MutableList<Byte>>(), keySelector)\n}\n\n/**\n * Groups elements of the original
array by the key returned by the given [keySelector] function\n * applied to each element and returns a map where
each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the entry
iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n *\npublic inline fun <K>
ShortArray.groupBy(keySelector: (Short) -> K): Map<K, List<Short>> {\n return
groupByTo(LinkedHashMap<K, MutableList<Short>>(), keySelector)\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n *\npublic inline fun <K>
IntArray.groupBy(keySelector: (Int) -> K): Map<K, List<Int>> {\n return groupByTo(LinkedHashMap<K,
MutableList<Int>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the
given [keySelector] function\n * applied to each element and returns a map where each group key is associated with
a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced
from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n *\npublic
inline fun <K> LongArray.groupBy(keySelector: (Long) -> K): Map<K, List<Long>> {\n return
groupByTo(LinkedHashMap<K, MutableList<Long>>(), keySelector)\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the

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entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n * \n * public inline fun <K>
FloatArray.groupBy(keySelector: (Float) -> K): Map<K, List<Float>> {\n return groupByTo(LinkedHashMap<K,
MutableList<Float>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the
given [keySelector] function\n * applied to each element and returns a map where each group key is associated with
a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced
from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n * \n * public
inline fun <K> DoubleArray.groupBy(keySelector: (Double) -> K): Map<K, List<Double>> {\n return
groupByTo(LinkedHashMap<K, MutableList<Double>>(), keySelector)\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n * \n * public inline fun <K>
BooleanArray.groupBy(keySelector: (Boolean) -> K): Map<K, List<Boolean>> {\n return
groupByTo(LinkedHashMap<K, MutableList<Boolean>>(), keySelector)\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n * \n * public inline fun <K>
CharArray.groupBy(keySelector: (Char) -> K): Map<K, List<Char>> {\n return groupByTo(LinkedHashMap<K,
MutableList<Char>>(), keySelector)\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied
to each element of the original array\n * by the key returned by the given [keySelector] function applied to the
element\n * and returns a map where each group key is associated with a list of corresponding values.\n * \n * The
returned map preserves the entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n * \n * public inline fun <T, K, V>
Array<out T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> {\n return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n * and returns a map where each group key is associated
with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n * \n * public inline fun <K, V>
ByteArray.groupBy(keySelector: (Byte) -> K, valueTransform: (Byte) -> V): Map<K, List<V>> {\n return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n * and returns a map where each group key is associated
with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n * \n * public inline fun <K, V>
ShortArray.groupBy(keySelector: (Short) -> K, valueTransform: (Short) -> V): Map<K, List<V>> {\n return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n * and returns a map where each group key is associated
with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n * \n * public inline fun <K, V>
IntArray.groupBy(keySelector: (Int) -> K, valueTransform: (Int) -> V): Map<K, List<V>> {\n return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values

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returned by the [valueTransform] function applied to each element of the original array\n \* by the key returned by the given [keySelector] function applied to the element\n \* and returns a map where each group key is associated with a list of corresponding values.\n \* \n \* The returned map preserves the entry iteration order of the keys produced from the original array.\n \* \n \* @sample

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samples.collections.Collections.Transformations.groupByKeyAndValues\n */\npublic inline fun <K, V>
LongArray.groupBy(keySelector: (Long) -> K, valueTransform: (Long) -> V): Map<K, List<V>> {\n return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n * and returns a map where each group key is associated
with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeyAndValues\n */\npublic inline fun <K, V>
FloatArray.groupBy(keySelector: (Float) -> K, valueTransform: (Float) -> V): Map<K, List<V>> {\n return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n * by the key returned by
the given [keySelector] function applied to the element\n * and returns a map where each group key is associated
with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeyAndValues\n */\npublic inline fun <K, V>
DoubleArray.groupBy(keySelector: (Double) -> K, valueTransform: (Double) -> V): Map<K, List<V>> {\n
return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups
values returned by the [valueTransform] function applied to each element of the original array\n * by the key
returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is
associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the
keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeyAndValues\n */\npublic inline fun <K, V>
BooleanArray.groupBy(keySelector: (Boolean) -> K, valueTransform: (Boolean) -> V): Map<K, List<V>> {\n
return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups
values returned by the [valueTransform] function applied to each element of the original array\n * by the key
returned by the given [keySelector] function applied to the element\n * and returns a map where each group key is
associated with a list of corresponding values.\n * \n * The returned map preserves the entry iteration order of the
keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeyAndValues\n */\npublic inline fun <K, V>
CharArray.groupBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, List<V>> {\n return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements
of the original array by the key returned by the given [keySelector] function\n * applied to each element and puts to
the [destination] map each group key associated with a list of corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline
fun <T, K, M : MutableMap<in K, MutableList<T>>>> Array<out T>.groupByTo(destination: M, keySelector: (T) -
> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key)
{ ArrayList<T>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the
[destination] map each group key associated with a list of corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n */\npublic inline
fun <K, M : MutableMap<in K, MutableList<Byte>>>> ByteArray.groupByTo(destination: M, keySelector: (Byte) -
> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key)
{ ArrayList<Byte>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and puts to the

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[destination] map each group key associated with a list of corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n * \n public inline
fun <K, M : MutableMap<in K, MutableList<Short>>> ShortArray.groupByTo(destination: M, keySelector: (Short)
-> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list =
destination.getOrPut(key) { ArrayList<Short>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n *
Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each
element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n *
@return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n public inline fun <K, M : MutableMap<in K, MutableList<Int>>> IntArray.groupByTo(destination: M,
keySelector: (Int) -> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list =
destination.getOrPut(key) { ArrayList<Int>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n *
Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each
element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n *
@return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n public inline fun <K, M : MutableMap<in K, MutableList<Long>>> LongArray.groupByTo(destination: M,
keySelector: (Long) -> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list =
destination.getOrPut(key) { ArrayList<Long>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n *
Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each
element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n *
@return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n public inline fun <K, M : MutableMap<in K, MutableList<Float>>> FloatArray.groupByTo(destination: M,
keySelector: (Float) -> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list =
destination.getOrPut(key) { ArrayList<Float>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n *
Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each
element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n *
@return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n public inline fun <K, M : MutableMap<in K, MutableList<Double>>> DoubleArray.groupByTo(destination: M,
keySelector: (Double) -> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list =
destination.getOrPut(key) { ArrayList<Double>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n *
Groups elements of the original array by the key returned by the given [keySelector] function\n * applied to each
element and puts to the [destination] map each group key associated with a list of corresponding elements.\n * \n *
@return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n public inline fun <K, M : MutableMap<in K, MutableList<Boolean>>> BooleanArray.groupByTo(destination:
M, keySelector: (Boolean) -> K): M {\n for (element in this) {\n val key = keySelector(element)\n val list =
destination.getOrPut(key) { ArrayList<Boolean>() }\n list.add(element)\n }\n return
destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector]
function\n * applied to each element and puts to the [destination] map each group key associated with a list of
corresponding elements.\n * \n * @return The [destination] map.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n *\n public inline fun <K, M : MutableMap<in K,
MutableList<Char>>> CharArray.groupByTo(destination: M, keySelector: (Char) -> K): M {\n for (element in
this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) { ArrayList<Char>() }\n
list.add(element)\n }\n return destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function
applied to each element of the original array\n * by the key returned by the given [keySelector] function applied to
the element\n * and puts to the [destination] map each group key associated with a list of corresponding values.\n *
\n * @return The [destination] map.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n *\n public inline fun <T, K, V, M :
MutableMap<in K, MutableList<V>>> Array<out T>.groupByTo(destination: M, keySelector: (T) -> K,
valueTransform: (T) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list =

```



```

MutableMap<in K, MutableList<V>>> BooleanArray.groupByTo(destination: M, keySelector: (Boolean) -> K,
valueTransform: (Boolean) -> V): M {
    for (element in this) {
        val key = keySelector(element)
        val list = destination.getOrPut(key) { ArrayList<V>() }
        list.add(valueTransform(element))
    }
    return destination
}

/**
 * Groups values returned by the [valueTransform] function applied to each element of the
 * original array by the key returned by the given [keySelector] function applied to the element
 * and puts to the [destination] map each group key associated with a list of corresponding values.
 * @return The [destination] map.
 * @sample samples.collections.Collections.Transformations.groupByKeyAndValues
 */
public inline fun <K, V, M : MutableMap<in K, MutableList<V>>> CharArray.groupByTo(destination: M, keySelector:
(Char) -> K, valueTransform: (Char) -> V): M {
    for (element in this) {
        val key = keySelector(element)
        val list = destination.getOrPut(key) { ArrayList<V>() }
        list.add(valueTransform(element))
    }
    return destination
}

/**
 * Creates a [Grouping] source from an array to be used later with one of group-and-fold
 * operations using the specified [keySelector] function to extract a key from each element.
 * @sample samples.collections.Grouping.groupingByEachCount
 */
@SinceKotlin("1.1")
public inline fun <T, K>
Array<out T>.groupingBy(crossinline keySelector: (T) -> K): Grouping<T, K> {
    return object : Grouping<T, K> {
        override fun sourceIterator(): Iterator<T> = this@groupingBy.iterator()
        override fun
keyOf(element: T): K = keySelector(element)
    }
}

/**
 * Returns a list containing the results of applying
 * the given [transform] function to each element in the original array.
 * @sample
samples.collections.Collections.Transformations.map
 */
public inline fun <T, R> Array<out T>.map(transform:
(T) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}

/**
 * Returns a list containing the
 * results of applying the given [transform] function to each element in the original array.
 * @sample
samples.collections.Collections.Transformations.map
 */
public inline fun <R> ByteArray.map(transform: (Byte)
-> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}

/**
 * Returns a list containing the
 * results of applying the given [transform] function to each element in the original array.
 * @sample
samples.collections.Collections.Transformations.map
 */
public inline fun <R> ShortArray.map(transform:
(Short) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}

/**
 * Returns a list containing
 * the results of applying the given [transform] function to each element in the original array.
 * @sample
samples.collections.Collections.Transformations.map
 */
public inline fun <R> IntArray.map(transform: (Int) ->
R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}

/**
 * Returns a list containing the results
 * of applying the given [transform] function to each element in the original array.
 * @sample
samples.collections.Collections.Transformations.map
 */
public inline fun <R> LongArray.map(transform:
(Long) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}

/**
 * Returns a list containing
 * the results of applying the given [transform] function to each element in the original array.
 * @sample
samples.collections.Collections.Transformations.map
 */
public inline fun <R> FloatArray.map(transform: (Float)
-> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}

/**
 * Returns a list containing the
 * results of applying the given [transform] function to each element in the original array.
 * @sample
samples.collections.Collections.Transformations.map
 */
public inline fun <R> DoubleArray.map(transform:
(Double) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}

/**
 * Returns a list
 * containing the results of applying the given [transform] function to each element in the original array.
 * @sample
samples.collections.Collections.Transformations.map
 */
public inline fun <R> BooleanArray.map(transform:
(Boolean) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}

/**
 * Returns a list
 * containing the results of applying the given [transform] function to each element in the original array.
 * @sample
samples.collections.Collections.Transformations.map
 */
public inline fun <R>
CharArray.map(transform: (Char) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}

/**
 * Returns a list containing the results of applying the given [transform] function to each element and its index in
 * the original array.
 * @param [transform] function that takes the index of an element and the element itself
 * and returns the result of the transform applied to the element.
 */
public inline fun <T, R> Array<out
T>.mapIndexed(transform: (index: Int, T) -> R): List<R> {
    return mapIndexedTo(ArrayList<R>(size),
transform)
}

/**
 * Returns a list containing the results of applying the given [transform] function to each

```

element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> ByteArray.mapIndexed(transform: (index: Int, Byte) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> ShortArray.mapIndexed(transform: (index: Int, Short) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> IntArray.mapIndexed(transform: (index: Int, Int) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> LongArray.mapIndexed(transform: (index: Int, Long) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> FloatArray.mapIndexed(transform: (index: Int, Float) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> DoubleArray.mapIndexed(transform: (index: Int, Double) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> BooleanArray.mapIndexed(transform: (index: Int, Boolean) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing the results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <R> CharArray.mapIndexed(transform: (index: Int, Char) -> R): List<R> {\n return mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/\*\*\n \* Returns a list containing only the non-null results of applying the given [transform] function\n \* to each element and its index in the original array.\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <T, R : Any> Array<out T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): List<R> {\n return mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/\*\*\n \* Applies the given [transform] function to each element and its index in the original array\n \* and appends only the non-null results to the given [destination].\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <T, R : Any, C : MutableCollection<in R>> Array<out T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }\n return destination\n}\n\n/\*\*\n \* Applies the given [transform] function to each element and its index in the original array\n \* and appends the results to the given [destination].\n \* @param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*/\npublic inline fun <T, R, C : MutableCollection<in R>> Array<out T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {\n var index = 0\n for (item in this)\n destination.add(transform(index++, item))\n return destination\n}\n\n/\*\*\n \* Applies the given

```

[transform] function to each element and its index in the original array
 * and appends the results to the given
[destination].
 * @param [transform] function that takes the index of an element and the element itself
 * and
returns the result of the transform applied to the element.
 *
public inline fun <R, C : MutableCollection<in R>>
ByteArray.mapIndexedTo(destination: C, transform: (index: Int, Byte) -> R): C {
    var index = 0
    for (item in this)
        destination.add(transform(index++, item))
    return destination
}
 * Applies the given
[transform] function to each element and its index in the original array
 * and appends the results to the given
[destination].
 * @param [transform] function that takes the index of an element and the element itself
 * and
returns the result of the transform applied to the element.
 *
public inline fun <R, C : MutableCollection<in R>>
ShortArray.mapIndexedTo(destination: C, transform: (index: Int, Short) -> R): C {
    var index = 0
    for (item in this)
        destination.add(transform(index++, item))
    return destination
}
 * Applies the given
[transform] function to each element and its index in the original array
 * and appends the results to the given
[destination].
 * @param [transform] function that takes the index of an element and the element itself
 * and
returns the result of the transform applied to the element.
 *
public inline fun <R, C : MutableCollection<in R>>
IntArray.mapIndexedTo(destination: C, transform: (index: Int, Int) -> R): C {
    var index = 0
    for (item in this)
        destination.add(transform(index++, item))
    return destination
}
 * Applies the given
[transform] function to each element and its index in the original array
 * and appends the results to the given
[destination].
 * @param [transform] function that takes the index of an element and the element itself
 * and
returns the result of the transform applied to the element.
 *
public inline fun <R, C : MutableCollection<in R>>
LongArray.mapIndexedTo(destination: C, transform: (index: Int, Long) -> R): C {
    var index = 0
    for (item in this)
        destination.add(transform(index++, item))
    return destination
}
 * Applies the given
[transform] function to each element and its index in the original array
 * and appends the results to the given
[destination].
 * @param [transform] function that takes the index of an element and the element itself
 * and
returns the result of the transform applied to the element.
 *
public inline fun <R, C : MutableCollection<in R>>
FloatArray.mapIndexedTo(destination: C, transform: (index: Int, Float) -> R): C {
    var index = 0
    for (item in this)
        destination.add(transform(index++, item))
    return destination
}
 * Applies the given
[transform] function to each element and its index in the original array
 * and appends the results to the given
[destination].
 * @param [transform] function that takes the index of an element and the element itself
 * and
returns the result of the transform applied to the element.
 *
public inline fun <R, C : MutableCollection<in R>>
DoubleArray.mapIndexedTo(destination: C, transform: (index: Int, Double) -> R): C {
    var index = 0
    for (item in this)
        destination.add(transform(index++, item))
    return destination
}
 * Applies the given
[transform] function to each element and its index in the original array
 * and appends the results to the given
[destination].
 * @param [transform] function that takes the index of an element and the element itself
 * and
returns the result of the transform applied to the element.
 *
public inline fun <R, C : MutableCollection<in R>>
BooleanArray.mapIndexedTo(destination: C, transform: (index: Int, Boolean) -> R): C {
    var index = 0
    for (item in this)
        destination.add(transform(index++, item))
    return destination
}
 * Applies the given
[transform] function to each element and its index in the original array
 * and appends the results to the given
[destination].
 * @param [transform] function that takes the index of an element and the element itself
 * and
returns the result of the transform applied to the element.
 *
public inline fun <R, C : MutableCollection<in R>>
CharArray.mapIndexedTo(destination: C, transform: (index: Int, Char) -> R): C {
    var index = 0
    for (item in this)
        destination.add(transform(index++, item))
    return destination
}
 * Returns a list containing
only the non-null results of applying the given [transform] function
 * to each element in the original array.
 *
public inline fun <T, R : Any> Array<out T>.mapNotNull(transform: (T) -> R?): List<R> {
    return
mapNotNullTo(ArrayList<R>(), transform)
}
 * Applies the given [transform] function to each element in
the original array
 * and appends only the non-null results to the given [destination].
 *
public inline fun <T, R : Any, C : MutableCollection<in R>> Array<out T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {
    forEach { element -> transform(element)?.let { destination.add(it) } }
    return destination
}
 * Applies
the given [transform] function to each element of the original array
 * and appends the results to the given
[destination].
 *
public inline fun <T, R, C : MutableCollection<in R>> Array<out T>.mapTo(destination: C,

```

```

transform: (T) -> R): C {\n  for (item in this)\n    destination.add(transform(item))\n  return
destination}\n}\n/**\n * Applies the given [transform] function to each element of the original array\n * and
appends the results to the given [destination].\n */\npublic inline fun <R, C : MutableCollection<in R>>
ByteArray.mapTo(destination: C, transform: (Byte) -> R): C {\n  for (item in this)\n
destination.add(transform(item))\n  return destination}\n}\n/**\n * Applies the given [transform] function to each
element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C :
MutableCollection<in R>> ShortArray.mapTo(destination: C, transform: (Short) -> R): C {\n  for (item in this)\n
destination.add(transform(item))\n  return destination}\n}\n/**\n * Applies the given [transform] function to
each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R,
C : MutableCollection<in R>> IntArray.mapTo(destination: C, transform: (Int) -> R): C {\n  for (item in this)\n
destination.add(transform(item))\n  return destination}\n}\n/**\n * Applies the given [transform] function to each
element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R, C :
MutableCollection<in R>> LongArray.mapTo(destination: C, transform: (Long) -> R): C {\n  for (item in this)\n
destination.add(transform(item))\n  return destination}\n}\n/**\n * Applies the given [transform] function to
each element of the original array\n * and appends the results to the given [destination].\n */\npublic inline fun <R,
C : MutableCollection<in R>> FloatArray.mapTo(destination: C, transform: (Float) -> R): C {\n  for (item in
this)\n  destination.add(transform(item))\n  return destination}\n}\n/**\n * Applies the given [transform]
function to each element of the original array\n * and appends the results to the given [destination].\n */\npublic
inline fun <R, C : MutableCollection<in R>> DoubleArray.mapTo(destination: C, transform: (Double) -> R): C {\n
for (item in this)\n  destination.add(transform(item))\n  return destination}\n}\n/**\n * Applies the given
[transform] function to each element of the original array\n * and appends the results to the given [destination].\n
*/\npublic inline fun <R, C : MutableCollection<in R>> BooleanArray.mapTo(destination: C, transform: (Boolean)
-> R): C {\n  for (item in this)\n  destination.add(transform(item))\n  return destination}\n}\n/**\n * Applies
the given [transform] function to each element of the original array\n * and appends the results to the given
[destination].\n */\npublic inline fun <R, C : MutableCollection<in R>> CharArray.mapTo(destination: C,
transform: (Char) -> R): C {\n  for (item in this)\n  destination.add(transform(item))\n  return
destination}\n}\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an
[IndexValue] containing the index of that element and the element itself.\n */\npublic fun <T> Array<out
T>.withIndex(): Iterable<IndexedValue<T>> {\n  return IndexingIterable { iterator() }\n}\n/**\n * Returns a
lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the index of that
element and the element itself.\n */\npublic fun ByteArray.withIndex(): Iterable<IndexedValue<Byte>> {\n  return
IndexingIterable { iterator() }\n}\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n
* into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun
ShortArray.withIndex(): Iterable<IndexedValue<Short>> {\n  return IndexingIterable { iterator() }\n}\n/**\n *
Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the
index of that element and the element itself.\n */\npublic fun IntArray.withIndex(): Iterable<IndexedValue<Int>>
{\n  return IndexingIterable { iterator() }\n}\n/**\n * Returns a lazy [Iterable] that wraps each element of the
original array\n * into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic
fun LongArray.withIndex(): Iterable<IndexedValue<Long>> {\n  return IndexingIterable { iterator() }\n}\n/**\n
* Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue] containing the
index of that element and the element itself.\n */\npublic fun FloatArray.withIndex():
Iterable<IndexedValue<Float>> {\n  return IndexingIterable { iterator() }\n}\n/**\n * Returns a lazy [Iterable]
that wraps each element of the original array\n * into an [IndexedValue] containing the index of that element and the
element itself.\n */\npublic fun DoubleArray.withIndex(): Iterable<IndexedValue<Double>> {\n  return
IndexingIterable { iterator() }\n}\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n
* into an [IndexedValue] containing the index of that element and the element itself.\n */\npublic fun
BooleanArray.withIndex(): Iterable<IndexedValue<Boolean>> {\n  return IndexingIterable { iterator()
}\n}\n/**\n * Returns a lazy [Iterable] that wraps each element of the original array\n * into an [IndexedValue]

```

containing the index of that element and the element itself.

```

public fun CharArray.withIndex():
    Iterable<IndexedValue<Char>> {
        return IndexingIterable { iterator() }
    }

```

`\n * Returns a list containing only distinct elements from the given array.`

```

public fun <T> Array<out T>.distinct(): List<T> {
    return this.toMutableSet().toList()
}

```

`\n * Returns a list containing only distinct elements from the given array.`

```

public fun ByteArray.distinct(): List<Byte> {
    return this.toMutableSet().toList()
}

```

`\n * Returns a list containing only distinct elements from the given array.`

```

public fun ShortArray.distinct(): List<Short> {
    return this.toMutableSet().toList()
}

```

`\n * Returns a list containing only distinct elements from the given array.`

```

public fun LongArray.distinct(): List<Long> {
    return this.toMutableSet().toList()
}

```

`\n * Returns a list containing only distinct elements from the given array.`

```

public fun FloatArray.distinct(): List<Float> {
    return this.toMutableSet().toList()
}

```

`\n * Returns a list containing only distinct elements from the given array.`

```

public fun DoubleArray.distinct(): List<Double> {
    return this.toMutableSet().toList()
}

```

`\n * Returns a list containing only distinct elements from the given array.`

```

public fun BooleanArray.distinct(): List<Boolean> {
    return this.toMutableSet().toList()
}

```

`\n * Returns a list containing only distinct elements from the given array.`

```

public fun CharArray.distinct(): List<Char> {
    return this.toMutableSet().toList()
}

```

`\n * Returns a list containing only elements from the given array having distinct keys returned by the given [selector] function.`

```

public inline fun <T, K> Array<out T>.distinctBy(selector: (T) -> K): List<T> {
    val set = HashSet<K>()
    val list = ArrayList<T>()
    for (e in this) {
        val key = selector(e)
        if (set.add(key)) list.add(e)
    }
    return list
}

```

`\n * Returns a list containing only elements from the given array having distinct keys returned by the given [selector] function.`

```

public inline fun <K> ByteArray.distinctBy(selector: (Byte) -> K): List<Byte> {
    val set = HashSet<K>()
    val list = ArrayList<Byte>()
    for (e in this) {
        val key = selector(e)
        if (set.add(key)) list.add(e)
    }
    return list
}

```

`\n * Returns a list containing only elements from the given array having distinct keys returned by the given [selector] function.`

```

public inline fun <K> ShortArray.distinctBy(selector: (Short) -> K): List<Short> {
    val set = HashSet<K>()
    val list = ArrayList<Short>()
    for (e in this) {
        val key = selector(e)
        if (set.add(key)) list.add(e)
    }
    return list
}

```

`\n * Returns a list containing only elements from the given array having distinct keys returned by the given [selector] function.`

```

public inline fun <K> IntArray.distinctBy(selector: (Int) -> K): List<Int> {
    val set = HashSet<K>()
    val list = ArrayList<Int>()
    for (e in this) {
        val key = selector(e)
        if (set.add(key)) list.add(e)
    }
    return list
}

```

`\n * Returns a list containing only elements from the given array having distinct keys returned by the given [selector] function.`

```

public inline fun <K> LongArray.distinctBy(selector: (Long) -> K): List<Long> {
    val set = HashSet<K>()
    val list = ArrayList<Long>()
    for (e in this) {
        val key = selector(e)
        if (set.add(key)) list.add(e)
    }
    return list
}

```

`\n * Returns a list containing only elements from the given array having distinct keys returned by the given [selector] function.`

```

were in the source array.\n */\npublic inline fun <K> FloatArray.distinctBy(selector: (Float) -> K): List<Float> {\n
val set = HashSet<K>()\n val list = ArrayList<Float>()\n for (e in this) {\n val key = selector(e)\n if
(set.add(key))\n list.add(e)\n }\n return list\n}\n\n/**\n * Returns a list containing only elements from the
given array\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting
list are in the same order as they were in the source array.\n */\npublic inline fun <K>
DoubleArray.distinctBy(selector: (Double) -> K): List<Double> {\n val set = HashSet<K>()\n val list =
ArrayList<Double>()\n for (e in this) {\n val key = selector(e)\n if (set.add(key))\n list.add(e)\n
}\n return list\n}\n\n/**\n * Returns a list containing only elements from the given array\n * having distinct keys
returned by the given [selector] function.\n * \n * The elements in the resulting list are in the same order as they
were in the source array.\n */\npublic inline fun <K> BooleanArray.distinctBy(selector: (Boolean) -> K):
List<Boolean> {\n val set = HashSet<K>()\n val list = ArrayList<Boolean>()\n for (e in this) {\n val key
= selector(e)\n if (set.add(key))\n list.add(e)\n }\n return list\n}\n\n/**\n * Returns a list containing
only elements from the given array\n * having distinct keys returned by the given [selector] function.\n * \n * The
elements in the resulting list are in the same order as they were in the source array.\n */\npublic inline fun <K>
CharArray.distinctBy(selector: (Char) -> K): List<Char> {\n val set = HashSet<K>()\n val list =
ArrayList<Char>()\n for (e in this) {\n val key = selector(e)\n if (set.add(key))\n list.add(e)\n }\n
return list\n}\n\n/**\n * Returns a set containing all elements that are contained by both this set and the specified
collection.\n * \n * The returned set preserves the element iteration order of the original array.\n */\npublic infix fun
<T> Array<out T>.intersect(other: Iterable<T>): Set<T> {\n val set = this.toMutableSet()\n
set.retainAll(other)\n return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this
set and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n
*/\npublic infix fun ByteArray.intersect(other: Iterable<Byte>): Set<Byte> {\n val set = this.toMutableSet()\n
set.retainAll(other)\n return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this
set and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n
*/\npublic infix fun ShortArray.intersect(other: Iterable<Short>): Set<Short> {\n val set = this.toMutableSet()\n
set.retainAll(other)\n return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this
set and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n
*/\npublic infix fun IntArray.intersect(other: Iterable<Int>): Set<Int> {\n val set = this.toMutableSet()\n
set.retainAll(other)\n return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this
set and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n
*/\npublic infix fun LongArray.intersect(other: Iterable<Long>): Set<Long> {\n val set = this.toMutableSet()\n
set.retainAll(other)\n return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this
set and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n
*/\npublic infix fun FloatArray.intersect(other: Iterable<Float>): Set<Float> {\n val set = this.toMutableSet()\n
set.retainAll(other)\n return set\n}\n\n/**\n * Returns a set containing all elements that are contained by both this
set and the specified collection.\n * \n * The returned set preserves the element iteration order of the original array.\n
*/\npublic infix fun DoubleArray.intersect(other: Iterable<Double>): Set<Double> {\n val set =
this.toMutableSet()\n set.retainAll(other)\n return set\n}\n\n/**\n * Returns a set containing all elements that are
contained by both this set and the specified collection.\n * \n * The returned set preserves the element iteration order
of the original array.\n */\npublic infix fun BooleanArray.intersect(other: Iterable<Boolean>): Set<Boolean> {\n
val set = this.toMutableSet()\n set.retainAll(other)\n return set\n}\n\n/**\n * Returns a set containing all
elements that are contained by both this set and the specified collection.\n * \n * The returned set preserves the
element iteration order of the original array.\n */\npublic infix fun CharArray.intersect(other: Iterable<Char>):
Set<Char> {\n val set = this.toMutableSet()\n set.retainAll(other)\n return set\n}\n\n/**\n * Returns a set
containing all elements that are contained by this array and not contained by the specified collection.\n * \n * The
returned set preserves the element iteration order of the original array.\n */\npublic infix fun <T> Array<out
T>.subtract(other: Iterable<T>): Set<T> {\n val set = this.toMutableSet()\n set.removeAll(other)\n return
set\n}\n\n/**\n * Returns a set containing all elements that are contained by this array and not contained by the

```

specified collection.

```

    * The returned set preserves the element iteration order of the original array.
    *
    * public infix fun ByteArray.subtract(other: Iterable<Byte>): Set<Byte> {
    *     val set = this.toMutableSet()
    *     set.removeAll(other)
    *     return set
    * }
    * Returns a set containing all elements that are contained by this array and not contained by the specified collection.
    *
    * The returned set preserves the element iteration order of the original array.
    *
    * public infix fun ShortArray.subtract(other: Iterable<Short>): Set<Short> {
    *     val set = this.toMutableSet()
    *     set.removeAll(other)
    *     return set
    * }
    * Returns a set containing all elements that are contained by this array and not contained by the specified collection.
    *
    * The returned set preserves the element iteration order of the original array.
    *
    * public infix fun IntArray.subtract(other: Iterable<Int>): Set<Int> {
    *     val set = this.toMutableSet()
    *     set.removeAll(other)
    *     return set
    * }
    * Returns a set containing all elements that are contained by this array and not contained by the specified collection.
    *
    * The returned set preserves the element iteration order of the original array.
    *
    * public infix fun LongArray.subtract(other: Iterable<Long>): Set<Long> {
    *     val set = this.toMutableSet()
    *     set.removeAll(other)
    *     return set
    * }
    * Returns a set containing all elements that are contained by this array and not contained by the specified collection.
    *
    * The returned set preserves the element iteration order of the original array.
    *
    * public infix fun FloatArray.subtract(other: Iterable<Float>): Set<Float> {
    *     val set = this.toMutableSet()
    *     set.removeAll(other)
    *     return set
    * }
    * Returns a set containing all elements that are contained by this array and not contained by the specified collection.
    *
    * The returned set preserves the element iteration order of the original array.
    *
    * public infix fun DoubleArray.subtract(other: Iterable<Double>): Set<Double> {
    *     val set = this.toMutableSet()
    *     set.removeAll(other)
    *     return set
    * }
    * Returns a set containing all elements that are contained by this array and not contained by the specified collection.
    *
    * The returned set preserves the element iteration order of the original array.
    *
    * public infix fun BooleanArray.subtract(other: Iterable<Boolean>): Set<Boolean> {
    *     val set = this.toMutableSet()
    *     set.removeAll(other)
    *     return set
    * }
    * Returns a set containing all elements that are contained by this array and not contained by the specified collection.
    *
    * The returned set preserves the element iteration order of the original array.
    *
    * public infix fun CharArray.subtract(other: Iterable<Char>): Set<Char> {
    *     val set = this.toMutableSet()
    *     set.removeAll(other)
    *     return set
    * }
    * Returns a mutable set containing all distinct elements from the given array.
    *
    * The returned set preserves the element iteration order of the original array.
    *
    * public fun <T> Array<out T>.toMutableSet(): MutableSet<T> {
    *     val set = LinkedHashSet<T>(mapCapacity(size))
    *     for (item in this) set.add(item)
    *     return set
    * }
    * Returns a mutable set containing all distinct elements from the given array.
    *
    * The returned set preserves the element iteration order of the original array.
    *
    * public fun ByteArray.toMutableSet(): MutableSet<Byte> {
    *     val set = LinkedHashSet<Byte>(mapCapacity(size))
    *     for (item in this) set.add(item)
    *     return set
    * }
    * Returns a mutable set containing all distinct elements from the given array.
    *
    * The returned set preserves the element iteration order of the original array.
    *
    * public fun ShortArray.toMutableSet(): MutableSet<Short> {
    *     val set = LinkedHashSet<Short>(mapCapacity(size))
    *     for (item in this) set.add(item)
    *     return set
    * }
    * Returns a mutable set containing all distinct elements from the given array.
    *
    * The returned set preserves the element iteration order of the original array.
    *
    * public fun IntArray.toMutableSet(): MutableSet<Int> {
    *     val set = LinkedHashSet<Int>(mapCapacity(size))
    *     for (item in this) set.add(item)
    *     return set
    * }
    * Returns a mutable set containing all distinct elements from the given array.
    *
    * The returned set preserves the element iteration order of the original array.
    *
    * public fun LongArray.toMutableSet(): MutableSet<Long> {
    *     val set = LinkedHashSet<Long>(mapCapacity(size))
    *     for (item in this) set.add(item)
    *     return set
    * }
    * Returns a mutable set containing all distinct elements from the given array.
    *
    * The returned set preserves the element iteration order of the original array.
    *
    * public fun FloatArray.toMutableSet(): MutableSet<Float> {
    *     val set = LinkedHashSet<Float>(mapCapacity(size))
    *     for (item in this) set.add(item)
    *     return set
    * }
    * Returns a mutable set containing all distinct elements from the given array.
    *
    * The returned set preserves the element iteration order of the original array.
    *
    * public fun DoubleArray.toMutableSet(): MutableSet<Double> {
    *     val set = LinkedHashSet<Double>(mapCapacity(size))
    *     for (item in this) set.add(item)
    *     return set
    * }
    * Returns a mutable set containing all distinct elements from the given array.
    *
    * The returned set preserves the element iteration order of the original array.

```

```

*^public fun BooleanArray.toMutableSet(): MutableSet<Boolean> {
    val set =
    LinkedHashSet<Boolean>(mapCapacity(size))
    for (item in this) set.add(item)
    return set
}

Returns a mutable set containing all distinct elements from the given array.
The returned set preserves the element iteration order of the original array.

*^public fun CharArray.toMutableSet(): MutableSet<Char> {
    val set = LinkedHashSet<Char>(mapCapacity(size))
    for (item in this) set.add(item)
    return set
}

Returns a set containing all distinct elements from both collections.
The returned set preserves the element iteration order of the original array.
Those elements of the [other] collection that are unique are iterated in the end
in the order of the [other] collection.

*^public infix fun <T> Array<out T>.union(other: Iterable<T>):
Set<T> {
    val set = this.toMutableSet()
    set.addAll(other)
    return set
}

Returns a set containing all distinct elements from both collections.
The returned set preserves the element iteration order of the original array.
Those elements of the [other] collection that are unique are iterated in the end
in the order of the [other] collection.

*^public infix fun ByteArray.union(other: Iterable<Byte>): Set<Byte> {
    val set =
    this.toMutableSet()
    set.addAll(other)
    return set
}

Returns a set containing all distinct elements from both collections.
The returned set preserves the element iteration order of the original array.
Those elements of the [other] collection that are unique are iterated in the end
in the order of the [other] collection.

*^public infix fun ShortArray.union(other: Iterable<Short>): Set<Short> {
    val set = this.toMutableSet()
    set.addAll(other)
    return set
}

Returns a set containing all distinct elements from both collections.
The returned set preserves the element iteration order of the original array.
Those elements of the [other] collection that are unique are iterated in the end
in the order of the [other] collection.

*^public infix fun IntArray.union(other: Iterable<Int>): Set<Int> {
    val set = this.toMutableSet()
    set.addAll(other)
    return set
}

Returns a set containing all distinct elements from both collections.
The returned set preserves the element iteration order of the original array.
Those elements of the [other] collection that are unique are iterated in the end
in the order of the [other] collection.

*^public infix fun LongArray.union(other: Iterable<Long>): Set<Long> {
    val set = this.toMutableSet()
    set.addAll(other)
    return set
}

Returns a set containing all distinct elements from both collections.
The returned set preserves the element iteration order of the original array.
Those elements of the [other] collection that are unique are iterated in the end
in the order of the [other] collection.

*^public infix fun FloatArray.union(other: Iterable<Float>):
Set<Float> {
    val set = this.toMutableSet()
    set.addAll(other)
    return set
}

Returns a set containing all distinct elements from both collections.
The returned set preserves the element iteration order of the original array.
Those elements of the [other] collection that are unique are iterated in the end
in the order of the [other] collection.

*^public infix fun DoubleArray.union(other: Iterable<Double>): Set<Double> {
    val set = this.toMutableSet()
    set.addAll(other)
    return set
}

Returns a set containing all distinct elements from both collections.
The returned set preserves the element iteration order of the original array.
Those elements of the [other] collection that are unique are iterated in the end
in the order of the [other] collection.

*^public infix fun BooleanArray.union(other: Iterable<Boolean>): Set<Boolean> {
    val set =
    this.toMutableSet()
    set.addAll(other)
    return set
}

Returns a set containing all distinct elements from both collections.
The returned set preserves the element iteration order of the original array.
Those elements of the [other] collection that are unique are iterated in the end
in the order of the [other] collection.

*^public infix fun CharArray.union(other: Iterable<Char>): Set<Char> {
    val set = this.toMutableSet()
    set.addAll(other)
    return set
}

Returns `true` if all elements match the given [predicate].

@sample samples.collections.Collections.Aggregates.all
*^public inline fun <T> Array<out T>.all(predicate: (T)
-> Boolean): Boolean {
    for (element in this) if (!predicate(element)) return false
    return true
}

Returns `true` if all elements match the given [predicate].

@sample
samples.collections.Collections.Aggregates.all
*^public inline fun ByteArray.all(predicate: (Byte) -> Boolean):
Boolean {
    for (element in this) if (!predicate(element)) return false
    return true
}

Returns `true` if all elements match the given [predicate].

@sample samples.collections.Collections.Aggregates.all
*^public inline fun ShortArray.all(predicate: (Short) -> Boolean): Boolean {
    for (element in this) if
    (!predicate(element)) return false
    return true
}

Returns `true` if all elements match the given

```

```

[predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n *\npublic inline fun
IntArray.all(predicate: (Int) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return false\n
return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.all\n *\npublic inline fun LongArray.all(predicate: (Long) -> Boolean):
Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n/**\n * Returns `true` if
all elements match the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n
*\npublic inline fun FloatArray.all(predicate: (Float) -> Boolean): Boolean {\n for (element in this) if
(!predicate(element)) return false\n return true\n}\n\n/**\n * Returns `true` if all elements match the given
[predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n *\npublic inline fun
DoubleArray.all(predicate: (Double) -> Boolean): Boolean {\n for (element in this) if (!predicate(element)) return
false\n return true\n}\n\n/**\n * Returns `true` if all elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.all\n *\npublic inline fun BooleanArray.all(predicate: (Boolean) ->
Boolean): Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n/**\n *
Returns `true` if all elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.all\n *\npublic inline fun CharArray.all(predicate: (Char) -> Boolean):
Boolean {\n for (element in this) if (!predicate(element)) return false\n return true\n}\n\n/**\n * Returns `true` if
array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n *\npublic fun
<T> Array<out T>.any(): Boolean {\n return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one
element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n *\npublic fun ByteArray.any():
Boolean {\n return !isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n *\npublic fun ShortArray.any(): Boolean {\n return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n *\npublic fun IntArray.any(): Boolean {\n return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n *\npublic fun LongArray.any(): Boolean {\n return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n *\npublic fun FloatArray.any(): Boolean {\n return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n *\npublic fun DoubleArray.any(): Boolean {\n return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n *\npublic fun BooleanArray.any(): Boolean {\n return
!isEmpty()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n *\npublic fun CharArray.any(): Boolean {\n return
!isEmpty()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n *\npublic inline fun <T> Array<out
T>.any(predicate: (T) -> Boolean): Boolean {\n for (element in this) if (predicate(element)) return true\n return
false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n *\npublic inline fun ByteArray.any(predicate:
(Byte) -> Boolean): Boolean {\n for (element in this) if (predicate(element)) return true\n return
false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n *\npublic inline fun ShortArray.any(predicate:
(Short) -> Boolean): Boolean {\n for (element in this) if (predicate(element)) return true\n return
false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n *\npublic inline fun IntArray.any(predicate: (Int) -
> Boolean): Boolean {\n for (element in this) if (predicate(element)) return true\n return false\n}\n\n/**\n *
Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n *\npublic inline fun LongArray.any(predicate:
(Long) -> Boolean): Boolean {\n for (element in this) if (predicate(element)) return true\n return

```

```

false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun FloatArray.any(predicate:
(Float) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return true\n    return
false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun DoubleArray.any(predicate:
(Double) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return true\n    return
false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun BooleanArray.any(predicate:
(Boolean) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return true\n    return
false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun CharArray.any(predicate:
(Char) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return true\n    return
false\n}\n\n/**\n * Returns the number of elements in this array.\n * \n */\n@kotlin.internal.InlineOnly\npublic inline
fun <T> Array<out T>.count(): Int {\n    return size\n}\n\n/**\n * Returns the number of elements in this array.\n
*\n */\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.count(): Int {\n    return size\n}\n\n/**\n * Returns the
number of elements in this array.\n * \n */\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.count(): Int {\n
return size\n}\n\n/**\n * Returns the number of elements in this array.\n * \n */\n@kotlin.internal.InlineOnly\npublic
inline fun IntArray.count(): Int {\n    return size\n}\n\n/**\n * Returns the number of elements in this array.\n
*\n */\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.count(): Int {\n    return size\n}\n\n/**\n * Returns the
number of elements in this array.\n * \n */\n@kotlin.internal.InlineOnly\npublic inline fun FloatArray.count(): Int {\n
return size\n}\n\n/**\n * Returns the number of elements in this array.\n * \n */\n@kotlin.internal.InlineOnly\npublic
inline fun DoubleArray.count(): Int {\n    return size\n}\n\n/**\n * Returns the number of elements in this array.\n
*\n */\n@kotlin.internal.InlineOnly\npublic inline fun BooleanArray.count(): Int {\n    return size\n}\n\n/**\n * Returns
the number of elements in this array.\n * \n */\n@kotlin.internal.InlineOnly\npublic inline fun CharArray.count(): Int {\n
return size\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n * \n */\npublic inline fun
<T> Array<out T>.count(predicate: (T) -> Boolean): Int {\n    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements matching the given
[predicate].\n * \n */\npublic inline fun ByteArray.count(predicate: (Byte) -> Boolean): Int {\n    var count = 0\n
for (element in this) if (predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements
matching the given [predicate].\n * \n */\npublic inline fun ShortArray.count(predicate: (Short) -> Boolean): Int {\n
var count = 0\n    for (element in this) if (predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the
number of elements matching the given [predicate].\n * \n */\npublic inline fun IntArray.count(predicate: (Int) ->
Boolean): Int {\n    var count = 0\n    for (element in this) if (predicate(element)) ++count\n    return
count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n * \n */\npublic inline fun
LongArray.count(predicate: (Long) -> Boolean): Int {\n    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements matching the given
[predicate].\n * \n */\npublic inline fun FloatArray.count(predicate: (Float) -> Boolean): Int {\n    var count = 0\n
for (element in this) if (predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements
matching the given [predicate].\n * \n */\npublic inline fun DoubleArray.count(predicate: (Double) -> Boolean): Int {\n
var count = 0\n    for (element in this) if (predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the
number of elements matching the given [predicate].\n * \n */\npublic inline fun BooleanArray.count(predicate: (Boolean)
-> Boolean): Int {\n    var count = 0\n    for (element in this) if (predicate(element)) ++count\n    return
count\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n * \n */\npublic inline fun
CharArray.count(predicate: (Char) -> Boolean): Int {\n    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Accumulates value starting with [initial] value and
applying [operation] from left to right to current accumulator value and each element.\n * \n */\npublic inline fun <T, R>
Array<out T>.fold(initial: R, operation: (acc: R, T) -> R): R {\n    var accumulator = initial\n    for (element in this)
accumulator = operation(accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value starting

```

with [initial] value and applying [operation] from left to right to current accumulator value and each element.

```

*public inline fun <R> ByteArray.fold(initial: R, operation: (acc: R, Byte) -> R): R {
    var accumulator = initial
    for (element in this) accumulator = operation(accumulator, element)
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from left to right to current accumulator value and each element.

```

*public inline fun <R> ShortArray.fold(initial: R, operation: (acc: R, Short) -> R): R {
    var accumulator = initial
    for (element in this) accumulator = operation(accumulator, element)
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from left to right to current accumulator value and each element.

```

*public inline fun <R> IntArray.fold(initial: R, operation: (acc: R, Int) -> R): R {
    var accumulator = initial
    for (element in this) accumulator = operation(accumulator, element)
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from left to right to current accumulator value and each element.

```

*public inline fun <R> LongArray.fold(initial: R, operation: (acc: R, Long) -> R): R {
    var accumulator = initial
    for (element in this) accumulator = operation(accumulator, element)
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from left to right to current accumulator value and each element.

```

*public inline fun <R> FloatArray.fold(initial: R, operation: (acc: R, Float) -> R): R {
    var accumulator = initial
    for (element in this) accumulator = operation(accumulator, element)
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from left to right to current accumulator value and each element.

```

*public inline fun <R> DoubleArray.fold(initial: R, operation: (acc: R, Double) -> R): R {
    var accumulator = initial
    for (element in this) accumulator = operation(accumulator, element)
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from left to right to current accumulator value and each element.

```

*public inline fun <R> BooleanArray.fold(initial: R, operation: (acc: R, Boolean) -> R): R {
    var accumulator = initial
    for (element in this) accumulator = operation(accumulator, element)
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from left to right to current accumulator value and each element.

```

*public inline fun <R> CharArray.fold(initial: R, operation: (acc: R, Char) -> R): R {
    var accumulator = initial
    for (element in this) accumulator = operation(accumulator, element)
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from left to right to current accumulator value and each element with its index in the original array.

```

@param [operation] function that takes the index of an element, current accumulator value
* and the element itself, and calculates the next accumulator value.
*public inline fun <T, R> Array<out T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this) accumulator = operation(index++, accumulator, element)
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from left to right to current accumulator value and each element with its index in the original array.

```

@param [operation] function that takes the index of an element, current accumulator value
* and the element itself, and calculates the next accumulator value.
*public inline fun <R> ByteArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Byte) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this) accumulator = operation(index++, accumulator, element)
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from left to right to current accumulator value and each element with its index in the original array.

```

@param [operation] function that takes the index of an element, current accumulator value
* and the element itself, and calculates the next accumulator value.
*public inline fun <R> ShortArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Short) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this) accumulator = operation(index++, accumulator, element)
    return accumulator
}

```

Accumulates value starting with [initial] value and applying [operation] from left to right to current accumulator value and each element with its index in the original array.

```

@param [operation] function that takes the index of an element, current accumulator value
* and the element itself, and calculates the next accumulator value.
*public inline fun <R> IntArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Int) -> R): R {
    var index = 0
    var accumulator = initial
    for (element in this) accumulator = operation(index++, accumulator, element)
    return accumulator
}

```

Accumulates value starting with

[initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <R>  
LongArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Long) -> R): R {\n var index = 0\n var accumulator = initial\n for (element in this) accumulator = operation(index++, accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <R> FloatArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Float) -> R): R {\n var index = 0\n var accumulator = initial\n for (element in this) accumulator = operation(index++, accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <R> DoubleArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Double) -> R): R {\n var index = 0\n var accumulator = initial\n for (element in this) accumulator = operation(index++, accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <R> BooleanArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Boolean) -> R): R {\n var index = 0\n var accumulator = initial\n for (element in this) accumulator = operation(index++, accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from left to right\n \* to current accumulator value and each element with its index in the original array.\n \* @param [operation] function that takes the index of an element, current accumulator value\n \* and the element itself, and calculates the next accumulator value.\n \*/\npublic inline fun <R> CharArray.foldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R): R {\n var index = 0\n var accumulator = initial\n for (element in this) accumulator = operation(index++, accumulator, element)\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left to each element and current accumulator value.\n \*/\npublic inline fun <T, R> Array<out T>.foldRight(initial: R, operation: (T, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left to each element and current accumulator value.\n \*/\npublic inline fun <R> ByteArray.foldRight(initial: R, operation: (Byte, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left to each element and current accumulator value.\n \*/\npublic inline fun <R> ShortArray.foldRight(initial: R, operation: (Short, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left to each element and current accumulator value.\n \*/\npublic inline fun <R> IntArray.foldRight(initial: R, operation: (Int, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left to each element and current accumulator value.\n \*/\npublic inline fun <R> LongArray.foldRight(initial: R, operation: (Long, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(get(index--), accumulator)\n }\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left to each element and current accumulator value.\n \*/\npublic inline fun <R> FloatArray.foldRight(initial: R, operation: (Float, acc: R) -> R): R {\n var index = lastIndex\n var accumulator =

```

initial\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left
to each element and current accumulator value.\n */\npublic inline fun <R> DoubleArray.foldRight(initial: R,
operation: (Double, acc: R) -> R): R {\n  var index = lastIndex\n  var accumulator = initial\n  while (index >= 0)
{\n    accumulator = operation(get(index--), accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates
value starting with [initial] value and applying [operation] from right to left to each element and current accumulator
value.\n */\npublic inline fun <R> BooleanArray.foldRight(initial: R, operation: (Boolean, acc: R) -> R): R {\n  var
index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(get(index--),
accumulator)\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying
[operation] from right to left to each element and current accumulator value.\n */\npublic inline fun <R>
CharArray.foldRight(initial: R, operation: (Char, acc: R) -> R): R {\n  var index = lastIndex\n  var accumulator =
initial\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to
left\n * to each element with its index in the original array and current accumulator value.\n * @param [operation]
function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the
next accumulator value.\n */\npublic inline fun <T, R> Array<out T>.foldRightIndexed(initial: R, operation: (index:
Int, T, acc: R) -> R): R {\n  var index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n
accumulator = operation(index, get(index), accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n *
Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with
its index in the original array and current accumulator value.\n * @param [operation] function that takes the index of
an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n
*/\npublic inline fun <R> ByteArray.foldRightIndexed(initial: R, operation: (index: Int, Byte, acc: R) -> R): R {\n
var index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(index,
get(index), accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with
[initial] value and applying [operation] from right to left\n * to each element with its index in the original array and
current accumulator value.\n * @param [operation] function that takes the index of an element, the element itself\n *
and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <R>
ShortArray.foldRightIndexed(initial: R, operation: (index: Int, Short, acc: R) -> R): R {\n  var index = lastIndex\n
var accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(index, get(index), accumulator)\n
    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying
[operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n
*/\n * @param [operation] function that takes the index of an element, the element itself\n * and current accumulator
value, and calculates the next accumulator value.\n */\npublic inline fun <R> IntArray.foldRightIndexed(initial: R,
operation: (index: Int, Int, acc: R) -> R): R {\n  var index = lastIndex\n  var accumulator = initial\n  while (index
>= 0) {\n    accumulator = operation(index, get(index), accumulator)\n    --index\n  }\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to
left\n * to each element with its index in the original array and current accumulator value.\n * @param [operation]
function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the
next accumulator value.\n */\npublic inline fun <R> LongArray.foldRightIndexed(initial: R, operation: (index: Int,
Long, acc: R) -> R): R {\n  var index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n
accumulator = operation(index, get(index), accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n *
Accumulates value starting with [initial] value and applying [operation] from right to left\n * to each element with
its index in the original array and current accumulator value.\n * @param [operation] function that takes the index of
an element, the element itself\n * and current accumulator value, and calculates the next accumulator value.\n
*/\npublic inline fun <R> FloatArray.foldRightIndexed(initial: R, operation: (index: Int, Float, acc: R) -> R): R {\n
var index = lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(index,
get(index), accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with
[initial] value and applying [operation] from right to left\n * to each element with its index in the original array and

```

current accumulator value.\n \* @param [operation] function that takes the index of an element, the element itself\n \* and current accumulator value, and calculates the next accumulator value.\n \*/\npublic inline fun <R>

DoubleArray.foldRightIndexed(initial: R, operation: (index: Int, Double, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left\n \* to each element with its index in the original array and current accumulator value.\n \* @param [operation] function that takes the index of an element, the element itself\n \* and current accumulator value, and calculates the next accumulator value.\n \*/\npublic inline fun <R>

BooleanArray.foldRightIndexed(initial: R, operation: (index: Int, Boolean, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with [initial] value and applying [operation] from right to left\n \* to each element with its index in the original array and current accumulator value.\n \* @param [operation] function that takes the index of an element, the element itself\n \* and current accumulator value, and calculates the next accumulator value.\n \*/\npublic inline fun <R>

CharArray.foldRightIndexed(initial: R, operation: (index: Int, Char, acc: R) -> R): R {\n var index = lastIndex\n var accumulator = initial\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator\n}\n\n/\*\*\n \* Performs the given [action] on each element.\n \*/\npublic inline fun <T> Array<out T>.forEach(action: (T) -> Unit): Unit {\n for (element in this) action(element)\n}\n\n/\*\*\n \* Performs the given [action] on each element.\n \*/\npublic inline fun

ByteArray.forEach(action: (Byte) -> Unit): Unit {\n for (element in this) action(element)\n}\n\n/\*\*\n \* Performs the given [action] on each element.\n \*/\npublic inline fun ShortArray.forEach(action: (Short) -> Unit): Unit {\n for (element in this) action(element)\n}\n\n/\*\*\n \* Performs the given [action] on each element.\n \*/\npublic inline fun IntArray.forEach(action: (Int) -> Unit): Unit {\n for (element in this) action(element)\n}\n\n/\*\*\n \* Performs the given [action] on each element.\n \*/\npublic inline fun LongArray.forEach(action: (Long) -> Unit): Unit {\n for (element in this) action(element)\n}\n\n/\*\*\n \* Performs the given [action] on each element.\n \*/\npublic inline fun FloatArray.forEach(action: (Float) -> Unit): Unit {\n for (element in this) action(element)\n}\n\n/\*\*\n \* Performs the given [action] on each element.\n \*/\npublic inline fun DoubleArray.forEach(action: (Double) -> Unit): Unit {\n for (element in this) action(element)\n}\n\n/\*\*\n \* Performs the given [action] on each element.\n \*/\npublic inline fun BooleanArray.forEach(action: (Boolean) -> Unit): Unit {\n for (element in this) action(element)\n}\n\n/\*\*\n \* Performs the given [action] on each element.\n \*/\npublic inline fun

CharArray.forEach(action: (Char) -> Unit): Unit {\n for (element in this) action(element)\n}\n\n/\*\*\n \* Performs the given [action] on each element, providing sequential index with the element.\n \* @param [action] function that takes the index of an element and the element itself\n \* and performs the desired action on the element.\n \*/\npublic inline fun <T> Array<out T>.forEachIndexed(action: (index: Int, T) -> Unit): Unit {\n var index = 0\n for (item in this) action(index++, item)\n}\n\n/\*\*\n \* Performs the given [action] on each element, providing sequential index with the element.\n \* @param [action] function that takes the index of an element and the element itself\n \* and performs the desired action on the element.\n \*/\npublic inline fun ByteArray.forEachIndexed(action: (index: Int, Byte) -> Unit): Unit {\n var index = 0\n for (item in this) action(index++, item)\n}\n\n/\*\*\n \* Performs the given [action] on each element, providing sequential index with the element.\n \* @param [action] function that takes the index of an element and the element itself\n \* and performs the desired action on the element.\n \*/\npublic inline fun ShortArray.forEachIndexed(action: (index: Int, Short) -> Unit): Unit {\n var index = 0\n for (item in this) action(index++, item)\n}\n\n/\*\*\n \* Performs the given [action] on each element, providing sequential index with the element.\n \* @param [action] function that takes the index of an element and the element itself\n \* and performs the desired action on the element.\n \*/\npublic inline fun IntArray.forEachIndexed(action: (index: Int, Int) -> Unit): Unit {\n var index = 0\n for (item in this) action(index++, item)\n}\n\n/\*\*\n \* Performs the given [action] on each element, providing sequential index with the element.\n \* @param [action] function that takes the index of an element and the element itself\n \* and performs the desired action on the element.\n \*/\npublic inline fun

LongArray.forEachIndexed(action: (index: Int, Long) -> Unit): Unit {\n var index = 0\n for (item in this)

`action(index++, item)` Performs the given [action] on each element, providing sequential index with the element.
   
`@param [action]` function that takes the index of an element and the element itself and performs the desired action on the element.
   
`public inline fun FloatArray.forEachIndexed(action: (index: Int, Float) -> Unit): Unit` {
   
`var index = 0`
  
`for (item in this) action(index++, item)`
  
 }
   
 Performs the given [action] on each element, providing sequential index with the element.
   
`@param [action]` function that takes the index of an element and the element itself and performs the desired action on the element.
   
`public inline fun DoubleArray.forEachIndexed(action: (index: Int, Double) -> Unit): Unit` {
   
`var index = 0`
  
`for (item in this) action(index++, item)`
  
 }
   
 Performs the given [action] on each element, providing sequential index with the element.
   
`@param [action]` function that takes the index of an element and the element itself and performs the desired action on the element.
   
`public inline fun BooleanArray.forEachIndexed(action: (index: Int, Boolean) -> Unit): Unit` {
   
`var index = 0`
  
`for (item in this) action(index++, item)`
  
 }
   
 Performs the given [action] on each element, providing sequential index with the element.
   
`@param [action]` function that takes the index of an element and the element itself and performs the desired action on the element.
   
`public inline fun CharArray.forEachIndexed(action: (index: Int, Char) -> Unit): Unit` {
   
`var index = 0`
  
`for (item in this) action(index++, item)`
  
 }
   
 Returns the largest element or `null` if there are no elements.
   
`NaN` returns `NaN`.
   
`@SinceKotlin("1.1")`
  
`public fun Array<out Double>.max(): Double?` {
   
`if (isEmpty()) return null`
  
`var max = this[0]`
  
`if (max.isNaN()) return max`
  
`for (i in 1..lastIndex) {`
  
`val e = this[i]`
  
`if (e.isNaN()) return e`
  
`if (max < e) max = e`
  
`}`
  
`return max`
  
 }
   
 Returns the largest element or `null` if there are no elements.
   
`NaN` returns `NaN`.
   
`@SinceKotlin("1.1")`
  
`public fun Array<out Float>.max(): Float?` {
   
`if (isEmpty()) return null`
  
`var max = this[0]`
  
`if (max.isNaN()) return max`
  
`for (i in 1..lastIndex) {`
  
`val e = this[i]`
  
`if (e.isNaN()) return e`
  
`if (max < e) max = e`
  
`}`
  
`return max`
  
 }
   
 Returns the largest element or `null` if there are no elements.
   
`public fun <T : Comparable<T>> Array<out T>.max(): T?` {
   
`if (isEmpty()) return null`
  
`var max = this[0]`
  
`for (i in 1..lastIndex) {`
  
`val e = this[i]`
  
`if (max < e) max = e`
  
`}`
  
`return max`
  
 }
   
 Returns the largest element or `null` if there are no elements.
   
`public fun ByteArray.max(): Byte?` {
   
`if (isEmpty()) return null`
  
`var max = this[0]`
  
`for (i in 1..lastIndex) {`
  
`val e = this[i]`
  
`if (max < e) max = e`
  
`}`
  
`return max`
  
 }
   
 Returns the largest element or `null` if there are no elements.
   
`public fun ShortArray.max(): Short?` {
   
`if (isEmpty()) return null`
  
`var max = this[0]`
  
`for (i in 1..lastIndex) {`
  
`val e = this[i]`
  
`if (max < e) max = e`
  
`}`
  
`return max`
  
 }
   
 Returns the largest element or `null` if there are no elements.
   
`public fun IntArray.max(): Int?` {
   
`if (isEmpty()) return null`
  
`var max = this[0]`
  
`for (i in 1..lastIndex) {`
  
`val e = this[i]`
  
`if (max < e) max = e`
  
`}`
  
`return max`
  
 }
   
 Returns the largest element or `null` if there are no elements.
   
`public fun LongArray.max(): Long?` {
   
`if (isEmpty()) return null`
  
`var max = this[0]`
  
`for (i in 1..lastIndex) {`
  
`val e = this[i]`
  
`if (max < e) max = e`
  
`}`
  
`return max`
  
 }
   
 Returns the largest element or `null` if there are no elements.
   
`NaN` returns `NaN`.
   
`public fun FloatArray.max(): Float?` {
   
`if (isEmpty()) return null`
  
`var max = this[0]`
  
`if (max.isNaN()) return max`
  
`for (i in 1..lastIndex) {`
  
`val e = this[i]`
  
`if (e.isNaN()) return e`
  
`if (max < e) max = e`
  
`}`
  
`return max`
  
 }
   
 Returns the largest element or `null` if there are no elements.
   
`NaN` returns `NaN`.
   
`public fun DoubleArray.max(): Double?` {
   
`if (isEmpty()) return null`
  
`var max = this[0]`
  
`if (max.isNaN()) return max`
  
`for (i in 1..lastIndex) {`
  
`val e = this[i]`
  
`if (e.isNaN()) return e`
  
`if (max < e) max = e`
  
`}`
  
`return max`
  
 }
   
 Returns the largest element or `null` if there are no elements.
   
`public fun CharArray.max(): Char?` {
   
`if (isEmpty()) return null`
  
`var max = this[0]`
  
`for (i in 1..lastIndex) {`
  
`val e = this[i]`
  
`if (max < e) max = e`
  
`}`
  
`return max`
  
 }
   
 Returns the first element yielding the largest value of the given function or `null` if there are no elements.
   
`@sample`
  
`samples.collections.Aggregates.maxBy`
  
`public inline fun <T, R : Comparable<R>> Array<out T>.maxBy(selector: (T) -> R): T?` {
   
`if (isEmpty()) return null`
  
`var maxElem = this[0]`
  
`val lastIndex = this.lastIndex`
  
`if (lastIndex == 0) return maxElem`
  
`var maxValue = selector(maxElem)`
  
`for (i in 1..lastIndex) {`
  
`val e = this[i]`
  
`val v = selector(e)`
  
`if (maxValue < v) {`
  
`maxElem = e`
  
`}`
  
 }
   
 }



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    maxValue = v\n    }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first element having the largest value
according to the provided [comparator] or `null` if there are no elements.\n */\npublic fun <T> Array<out
T>.maxWith(comparator: Comparator<in T>): T? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in
1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(max, e) < 0) max = e\n    }\n    return
max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or `null`
if there are no elements.\n */\npublic fun ByteArray.maxWith(comparator: Comparator<in Byte>): Byte? {\n    if
(isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n * Returns the first element having the
largest value according to the provided [comparator] or `null` if there are no elements.\n */\npublic fun
ShortArray.maxWith(comparator: Comparator<in Short>): Short? {\n    if (isEmpty()) return null\n    var max =
this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(max, e) < 0) max = e\n
}\n    return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator]
or `null` if there are no elements.\n */\npublic fun IntArray.maxWith(comparator: Comparator<in Int>): Int? {\n    if
(isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n * Returns the first element having the
largest value according to the provided [comparator] or `null` if there are no elements.\n */\npublic fun
LongArray.maxWith(comparator: Comparator<in Long>): Long? {\n    if (isEmpty()) return null\n    var max =
this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(max, e) < 0) max = e\n
}\n    return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator]
or `null` if there are no elements.\n */\npublic fun FloatArray.maxWith(comparator: Comparator<in Float>): Float?
{\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n * Returns the first element having the
largest value according to the provided [comparator] or `null` if there are no elements.\n */\npublic fun
DoubleArray.maxWith(comparator: Comparator<in Double>): Double? {\n    if (isEmpty()) return null\n    var max
= this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(max, e) < 0) max = e\n
}\n    return max\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator]
or `null` if there are no elements.\n */\npublic fun BooleanArray.maxWith(comparator: Comparator<in Boolean>):
Boolean? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n
if (comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n * Returns the first element having the
largest value according to the provided [comparator] or `null` if there are no elements.\n */\npublic fun
CharArray.maxWith(comparator: Comparator<in Char>): Char? {\n    if (isEmpty()) return null\n    var max =
this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(max, e) < 0) max = e\n
}\n    return max\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements
is `NaN` returns `NaN`.\n */\n@SinceKotlin("1.1")\npublic fun Array<out Double>.min(): Double? {\n    if
(isEmpty()) return null\n    var min = this[0]\n    if (min.isNaN()) return min\n    for (i in 1..lastIndex) {\n        val e =
this[i]\n        if (e.isNaN()) return e\n        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the
smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n */\n@SinceKotlin("1.1")\npublic fun Array<out Float>.min(): Float? {\n    if (isEmpty()) return null\n    var min =
this[0]\n    if (min.isNaN()) return min\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (e.isNaN()) return e\n
        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no
elements.\n */\npublic fun <T : Comparable<T>> Array<out T>.min(): T? {\n    if (isEmpty()) return null\n    var
min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return
min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\npublic fun ByteArray.min():
Byte? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n
        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no
elements.\n */\npublic fun ShortArray.min(): Short? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in
1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the smallest
element or `null` if there are no elements.\n */\npublic fun IntArray.min(): Int? {\n    if (isEmpty()) return null\n

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var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (min > e) min = e\n  }\n  return
min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\npublic fun LongArray.min():
Long? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if
(min > e) min = e\n  }\n  return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no
elements.\n */\n * If any of elements is `NaN` returns `NaN`.\n */\npublic fun FloatArray.min(): Float? {\n  if
(isEmpty()) return null\n  var min = this[0]\n  if (min.isNaN()) return min\n  for (i in 1..lastIndex) {\n    val e =
this[i]\n    if (e.isNaN()) return e\n    if (min > e) min = e\n  }\n  return min\n}\n\n/**\n * Returns the
smallest element or `null` if there are no elements.\n */\n * If any of elements is `NaN` returns `NaN`.\n */\npublic
fun DoubleArray.min(): Double? {\n  if (isEmpty()) return null\n  var min = this[0]\n  if (min.isNaN()) return
min\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (e.isNaN()) return e\n    if (min > e) min = e\n  }\n
return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n */\npublic fun
CharArray.min(): Char? {\n  if (isEmpty()) return null\n  var min = this[0]\n  for (i in 1..lastIndex) {\n    val e
= this[i]\n    if (min > e) min = e\n  }\n  return min\n}\n\n/**\n * Returns the first element yielding the smallest
value of the given function or `null` if there are no elements.\n */\n * @sample
samples.collections.Collections.Aggregates.minBy\n */\npublic inline fun <T, R : Comparable<R>> Array<out
T>.minBy(selector: (T) -> R): T? {\n  if (isEmpty()) return null\n  var minElem = this[0]\n  val lastIndex =
this.lastIndex\n  if (lastIndex == 0) return minElem\n  var minValue = selector(minElem)\n  for (i in
1..lastIndex) {\n    val e = this[i]\n    val v = selector(e)\n    if (minValue > v) {\n      minElem = e\n
minValue = v\n    }\n  }\n  return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value
of the given function or `null` if there are no elements.\n */\n * @sample
samples.collections.Collections.Aggregates.minBy\n */\npublic inline fun <R : Comparable<R>>
ByteArray.minBy(selector: (Byte) -> R): Byte? {\n  if (isEmpty()) return null\n  var minElem = this[0]\n  val
lastIndex = this.lastIndex\n  if (lastIndex == 0) return minElem\n  var minValue = selector(minElem)\n  for (i in
1..lastIndex) {\n    val e = this[i]\n    val v = selector(e)\n    if (minValue > v) {\n      minElem = e\n
minValue = v\n    }\n  }\n  return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value
of the given function or `null` if there are no elements.\n */\n * @sample
samples.collections.Collections.Aggregates.minBy\n */\npublic inline fun <R : Comparable<R>>
ShortArray.minBy(selector: (Short) -> R): Short? {\n  if (isEmpty()) return null\n  var minElem = this[0]\n  val
lastIndex = this.lastIndex\n  if (lastIndex == 0) return minElem\n  var minValue = selector(minElem)\n  for (i in
1..lastIndex) {\n    val e = this[i]\n    val v = selector(e)\n    if (minValue > v) {\n      minElem = e\n
minValue = v\n    }\n  }\n  return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value
of the given function or `null` if there are no elements.\n */\n * @sample
samples.collections.Collections.Aggregates.minBy\n */\npublic inline fun <R : Comparable<R>>
IntArray.minBy(selector: (Int) -> R): Int? {\n  if (isEmpty()) return null\n  var minElem = this[0]\n  val lastIndex
= this.lastIndex\n  if (lastIndex == 0) return minElem\n  var minValue = selector(minElem)\n  for (i in
1..lastIndex) {\n    val e = this[i]\n    val v = selector(e)\n    if (minValue > v) {\n      minElem = e\n
minValue = v\n    }\n  }\n  return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value
of the given function or `null` if there are no elements.\n */\n * @sample
samples.collections.Collections.Aggregates.minBy\n */\npublic inline fun <R : Comparable<R>>
LongArray.minBy(selector: (Long) -> R): Long? {\n  if (isEmpty()) return null\n  var minElem = this[0]\n  val
lastIndex = this.lastIndex\n  if (lastIndex == 0) return minElem\n  var minValue = selector(minElem)\n  for (i in
1..lastIndex) {\n    val e = this[i]\n    val v = selector(e)\n    if (minValue > v) {\n      minElem = e\n
minValue = v\n    }\n  }\n  return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value
of the given function or `null` if there are no elements.\n */\n * @sample
samples.collections.Collections.Aggregates.minBy\n */\npublic inline fun <R : Comparable<R>>
FloatArray.minBy(selector: (Float) -> R): Float? {\n  if (isEmpty()) return null\n  var minElem = this[0]\n  val
lastIndex = this.lastIndex\n  if (lastIndex == 0) return minElem\n  var minValue = selector(minElem)\n  for (i in
1..lastIndex) {\n    val e = this[i]\n    val v = selector(e)\n    if (minValue > v) {\n      minElem = e\n

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minValue = v\n    }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value
of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minBy\n *\npublic inline fun <R : Comparable<R>>
DoubleArray.minBy(selector: (Double) -> R): Double? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i
in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n
minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element yielding the smallest value
of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minBy\n *\npublic inline fun <R : Comparable<R>>
BooleanArray.minBy(selector: (Boolean) -> R): Boolean? {\n    if (isEmpty()) return null\n    var minElem =
this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue =
selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)
{\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first
element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minBy\n *\npublic inline fun <R : Comparable<R>>
CharArray.minBy(selector: (Char) -> R): Char? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val
lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in
1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n
minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first element having the smallest value
according to the provided [comparator] or `null` if there are no elements.\n *\npublic fun <T> Array<out
T>.minWith(comparator: Comparator<in T>): T? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in
1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return
min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator] or
`null` if there are no elements.\n *\npublic fun ByteArray.minWith(comparator: Comparator<in Byte>): Byte? {\n
if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator] or `null` if there are no elements.\n *\npublic fun
ShortArray.minWith(comparator: Comparator<in Short>): Short? {\n    if (isEmpty()) return null\n    var min =
this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n
return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator]
or `null` if there are no elements.\n *\npublic fun IntArray.minWith(comparator: Comparator<in Int>): Int? {\n    if
(isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator] or `null` if there are no elements.\n *\npublic fun
LongArray.minWith(comparator: Comparator<in Long>): Long? {\n    if (isEmpty()) return null\n    var min =
this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n
return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator]
or `null` if there are no elements.\n *\npublic fun FloatArray.minWith(comparator: Comparator<in Float>): Float?
{\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if
(comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator] or `null` if there are no elements.\n *\npublic fun
DoubleArray.minWith(comparator: Comparator<in Double>): Double? {\n    if (isEmpty()) return null\n    var min =
this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n
return min\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator]
or `null` if there are no elements.\n *\npublic fun BooleanArray.minWith(comparator: Comparator<in Boolean>):
Boolean? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n
if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first element having the
smallest value according to the provided [comparator] or `null` if there are no elements.\n *\npublic fun

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CharArray.minWith(comparator: Comparator<in Char>): Char? {\n  if (isEmpty()) return null\n  var min =
this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (comparator.compare(min, e) > 0) min = e\n  }\n
return min\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun <T> Array<out T>.none(): Boolean {\n  return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun ByteArray.none(): Boolean {\n  return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun ShortArray.none(): Boolean {\n  return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun IntArray.none(): Boolean {\n  return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun LongArray.none(): Boolean {\n  return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun FloatArray.none(): Boolean {\n  return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun DoubleArray.none(): Boolean {\n  return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun BooleanArray.none(): Boolean {\n  return
isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun CharArray.none(): Boolean {\n  return
isEmpty()\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun <T> Array<out
T>.none(predicate: (T) -> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return false\n  return
true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun ByteArray.none(predicate:
(Byte) -> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return false\n  return
true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun ShortArray.none(predicate:
(Short) -> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return false\n  return
true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun IntArray.none(predicate: (Int)
-> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return false\n  return true\n}\n\n/**\n *
Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun LongArray.none(predicate:
(Long) -> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return false\n  return
true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun FloatArray.none(predicate:
(Float) -> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return false\n  return
true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun DoubleArray.none(predicate:
(Double) -> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return false\n  return
true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun
BooleanArray.none(predicate: (Boolean) -> Boolean): Boolean {\n  for (element in this) if (predicate(element))
return false\n  return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun CharArray.none(predicate:
(Char) -> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return false\n  return
true\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right to

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current accumulator value and each element.\n */\npublic inline fun <S, T : S> Array<out T>.reduce(operation:
(acc: S, T) -> S): S {\n if (isEmpty())\n throw UnsupportedOperationException("Empty array can't be
reduced.")\n var accumulator: S = this[0]\n for (index in 1..lastIndex) {\n accumulator =
operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the
first element and applying [operation] from left to right to current accumulator value and each element.\n */\npublic
inline fun ByteArray.reduce(operation: (acc: Byte, Byte) -> Byte): Byte {\n if (isEmpty())\n throw
UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = this[0]\n for (index in
1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n *
Accumulates value starting with the first element and applying [operation] from left to right to current accumulator
value and each element.\n */\npublic inline fun ShortArray.reduce(operation: (acc: Short, Short) -> Short): Short {\n
if (isEmpty())\n throw UnsupportedOperationException("Empty array can't be reduced.")\n var
accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n
}\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation]
from left to right to current accumulator value and each element.\n */\npublic inline fun IntArray.reduce(operation:
(acc: Int, Int) -> Int): Int {\n if (isEmpty())\n throw UnsupportedOperationException("Empty array can't be
reduced.")\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator =
operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the
first element and applying [operation] from left to right to current accumulator value and each element.\n */\npublic
inline fun LongArray.reduce(operation: (acc: Long, Long) -> Long): Long {\n if (isEmpty())\n throw
UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = this[0]\n for (index in
1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n *
Accumulates value starting with the first element and applying [operation] from left to right to current accumulator
value and each element.\n */\npublic inline fun FloatArray.reduce(operation: (acc: Float, Float) -> Float): Float {\n
if (isEmpty())\n throw UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator
= this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right to current accumulator value and each element.\n */\npublic inline fun DoubleArray.reduce(operation: (acc:
Double, Double) -> Double): Double {\n if (isEmpty())\n throw UnsupportedOperationException("Empty
array can't be reduced.")\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator =
operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the
first element and applying [operation] from left to right to current accumulator value and each element.\n */\npublic
inline fun BooleanArray.reduce(operation: (acc: Boolean, Boolean) -> Boolean): Boolean {\n if (isEmpty())\n
throw UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = this[0]\n for
(index in 1..lastIndex) {\n accumulator = operation(accumulator, this[index])\n }\n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right to current accumulator value and each element.\n */\npublic inline fun CharArray.reduce(operation: (acc: Char,
Char) -> Char): Char {\n if (isEmpty())\n throw UnsupportedOperationException("Empty array can't be
reduced.")\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator =
operation(accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the
first element and applying [operation] from left to right\n * to current accumulator value and each element with its
index in the original array.\n * @param [operation] function that takes the index of an element, current accumulator
value\n * and the element itself and calculates the next accumulator value.\n */\npublic inline fun <S, T : S>
Array<out T>.reduceIndexed(operation: (index: Int, acc: S, T) -> S): S {\n if (isEmpty())\n throw
UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator: S = this[0]\n for (index
in 1..lastIndex) {\n accumulator = operation(index, accumulator, this[index])\n }\n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself and calculates the

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next accumulator value.\n */\npublic inline fun ByteArray.reduceIndexed(operation: (index: Int, acc: Byte, Byte) ->
Byte): Byte {\n if (isEmpty())\n throw UnsupportedOperationException("Empty array can't be reduced.")\n
var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(index, accumulator,
this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and
applying [operation] from left to right\n * to current accumulator value and each element with its index in the
original array.\n * @param [operation] function that takes the index of an element, current accumulator value\n *
and the element itself and calculates the next accumulator value.\n */\npublic inline fun
ShortArray.reduceIndexed(operation: (index: Int, acc: Short, Short) -> Short): Short {\n if (isEmpty())\n throw
UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = this[0]\n for (index in
1..lastIndex) {\n accumulator = operation(index, accumulator, this[index])\n }\n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself and calculates the
next accumulator value.\n */\npublic inline fun IntArray.reduceIndexed(operation: (index: Int, acc: Int, Int) -> Int):
Int {\n if (isEmpty())\n throw UnsupportedOperationException("Empty array can't be reduced.")\n var
accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(index, accumulator,
this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and
applying [operation] from left to right\n * to current accumulator value and each element with its index in the
original array.\n * @param [operation] function that takes the index of an element, current accumulator value\n *
and the element itself and calculates the next accumulator value.\n */\npublic inline fun
LongArray.reduceIndexed(operation: (index: Int, acc: Long, Long) -> Long): Long {\n if (isEmpty())\n throw
UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = this[0]\n for (index in
1..lastIndex) {\n accumulator = operation(index, accumulator, this[index])\n }\n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself and calculates the
next accumulator value.\n */\npublic inline fun FloatArray.reduceIndexed(operation: (index: Int, acc: Float, Float) -
> Float): Float {\n if (isEmpty())\n throw UnsupportedOperationException("Empty array can't be
reduced.")\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator = operation(index,
accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with the first
element and applying [operation] from left to right\n * to current accumulator value and each element with its index
in the original array.\n * @param [operation] function that takes the index of an element, current accumulator
value\n * and the element itself and calculates the next accumulator value.\n */\npublic inline fun
DoubleArray.reduceIndexed(operation: (index: Int, acc: Double, Double) -> Double): Double {\n if (isEmpty())\n
throw UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = this[0]\n for
(index in 1..lastIndex) {\n accumulator = operation(index, accumulator, this[index])\n }\n return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself and calculates the
next accumulator value.\n */\npublic inline fun BooleanArray.reduceIndexed(operation: (index: Int, acc: Boolean,
Boolean) -> Boolean): Boolean {\n if (isEmpty())\n throw UnsupportedOperationException("Empty array
can't be reduced.")\n var accumulator = this[0]\n for (index in 1..lastIndex) {\n accumulator =
operation(index, accumulator, this[index])\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting
with the first element and applying [operation] from left to right\n * to current accumulator value and each element
with its index in the original array.\n * @param [operation] function that takes the index of an element, current
accumulator value\n * and the element itself and calculates the next accumulator value.\n */\npublic inline fun
CharArray.reduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): Char {\n if (isEmpty())\n throw
UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = this[0]\n for (index in

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1..lastIndex) {\n    accumulator = operation(index, accumulator, this[index])\n } return
accumulator}\n}\n/**\n * Accumulates value starting with last element and applying [operation] from right to left
to each element and current accumulator value.\n */\npublic inline fun <S, T : S> Array<out
T>.reduceRight(operation: (T, acc: S) -> S): S {\n    var index = lastIndex\n    if (index < 0) throw
UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator: S = get(index--)\n    while
(index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator}\n}\n/**\n * Accumulates value starting with last element and applying [operation] from right to left to each element and current
accumulator value.\n */\npublic inline fun ByteArray.reduceRight(operation: (Byte, acc: Byte) -> Byte): Byte {\n
    var index = lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n
    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n
    }\n    return accumulator}\n}\n/**\n * Accumulates value starting with last element and applying [operation] from
right to left to each element and current accumulator value.\n */\npublic inline fun
ShortArray.reduceRight(operation: (Short, acc: Short) -> Short): Short {\n    var index = lastIndex\n    if (index < 0)
throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = get(index--)\n
    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return
accumulator}\n}\n/**\n * Accumulates value starting with last element and applying [operation] from right to left
to each element and current accumulator value.\n */\npublic inline fun IntArray.reduceRight(operation: (Int, acc:
Int) -> Int): Int {\n    var index = lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array
can't be reduced.")\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator =
operation(get(index--), accumulator)\n    }\n    return accumulator}\n}\n/**\n * Accumulates value starting with last
element and applying [operation] from right to left to each element and current accumulator value.\n */\npublic
inline fun LongArray.reduceRight(operation: (Long, acc: Long) -> Long): Long {\n    var index = lastIndex\n    if
(index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator =
get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n
    return accumulator}\n}\n/**\n * Accumulates value starting with last element and applying [operation] from right to left
to each element and current accumulator value.\n */\npublic inline fun FloatArray.reduceRight(operation: (Float,
acc: Float) -> Float): Float {\n    var index = lastIndex\n    if (index < 0) throw
UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = get(index--)\n    while
(index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return
accumulator}\n}\n/**\n * Accumulates value starting with last element and applying [operation] from right to left to each element and current
accumulator value.\n */\npublic inline fun DoubleArray.reduceRight(operation: (Double, acc: Double) -> Double):
Double {\n    var index = lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be
reduced.")\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--),
accumulator)\n    }\n    return accumulator}\n}\n/**\n * Accumulates value starting with last element and applying
[operation] from right to left to each element and current accumulator value.\n */\npublic inline fun
BooleanArray.reduceRight(operation: (Boolean, acc: Boolean) -> Boolean): Boolean {\n    var index = lastIndex\n
    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator =
get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n
    return accumulator}\n}\n/**\n * Accumulates value starting with last element and applying [operation] from right to left
to each element and current accumulator value.\n */\npublic inline fun CharArray.reduceRight(operation: (Char, acc:
Char) -> Char): Char {\n    var index = lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty
array can't be reduced.")\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator =
operation(get(index--), accumulator)\n    }\n    return accumulator}\n}\n/**\n * Accumulates value starting with last
element and applying [operation] from right to left\n * to each element with its index in the original array and
current accumulator value.\n * @param [operation] function that takes the index of an element, the element itself\n *
and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <S, T : S>
Array<out T>.reduceRightIndexed(operation: (index: Int, T, acc: S) -> S): S {\n    var index = lastIndex\n    if (index
< 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator: S = get(index--

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)\n while (index >= 0) {\n     accumulator = operation(index, get(index), accumulator)\n     --index\n }\n
return accumulator\n}\n\n/**\n * Accumulates value starting with last element and applying [operation] from right
to left\n * to each element with its index in the original array and current accumulator value.\n * @param
[operation] function that takes the index of an element, the element itself\n * and current accumulator value, and
calculates the next accumulator value.\n */\npublic inline fun ByteArray.reduceRightIndexed(operation: (index: Int,
Byte, acc: Byte) -> Byte): Byte {\n    var index = lastIndex\n    if (index < 0) throw
UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = get(index--)\n    while
(index >= 0) {\n        accumulator = operation(index, get(index), accumulator)\n        --index\n    }\n    return
accumulator\n}\n\n/**\n * Accumulates value starting with last element and applying [operation] from right to left\n
* to each element with its index in the original array and current accumulator value.\n * @param [operation]
function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the
next accumulator value.\n */\npublic inline fun ShortArray.reduceRightIndexed(operation: (index: Int, Short, acc:
Short) -> Short): Short {\n    var index = lastIndex\n    if (index < 0) throw
UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = get(index--)\n    while
(index >= 0) {\n        accumulator = operation(index, get(index), accumulator)\n        --index\n    }\n    return
accumulator\n}\n\n/**\n * Accumulates value starting with last element and applying [operation] from right to left\n
* to each element with its index in the original array and current accumulator value.\n * @param [operation]
function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the
next accumulator value.\n */\npublic inline fun IntArray.reduceRightIndexed(operation: (index: Int, Int, acc: Int) ->
Int): Int {\n    var index = lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be
reduced.")\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index,
get(index), accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with
last element and applying [operation] from right to left\n * to each element with its index in the original array and
current accumulator value.\n * @param [operation] function that takes the index of an element, the element itself\n *
and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun
LongArray.reduceRightIndexed(operation: (index: Int, Long, acc: Long) -> Long): Long {\n    var index =
lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var
accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index),
accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with last element
and applying [operation] from right to left\n * to each element with its index in the original array and current
accumulator value.\n * @param [operation] function that takes the index of an element, the element itself\n * and
current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun
FloatArray.reduceRightIndexed(operation: (index: Int, Float, acc: Float) -> Float): Float {\n    var index =
lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var
accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index),
accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with last element
and applying [operation] from right to left\n * to each element with its index in the original array and current
accumulator value.\n * @param [operation] function that takes the index of an element, the element itself\n * and
current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun
DoubleArray.reduceRightIndexed(operation: (index: Int, Double, acc: Double) -> Double): Double {\n    var index =
lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n    var
accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index),
accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with last element
and applying [operation] from right to left\n * to each element with its index in the original array and current
accumulator value.\n * @param [operation] function that takes the index of an element, the element itself\n * and
current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun
BooleanArray.reduceRightIndexed(operation: (index: Int, Boolean, acc: Boolean) -> Boolean): Boolean {\n    var
index = lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n

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var accumulator = get(index--)\n  while (index >= 0) {\n    accumulator = operation(index, get(index),
accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with last element
and applying [operation] from right to left\n * to each element with its index in the original array and current
accumulator value.\n * @param [operation] function that takes the index of an element, the element itself\n * and
current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun
CharArray.reduceRightIndexed(operation: (index: Int, Char, acc: Char) -> Char): Char {\n  var index = lastIndex\n
if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n  var accumulator =
get(index--)\n  while (index >= 0) {\n    accumulator = operation(index, get(index), accumulator)\n    --index\n
  }\n  return accumulator\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to
each element in the array.\n */\npublic inline fun <T> Array<out T>.sumBy(selector: (T) -> Int): Int {\n  var sum:
Int = 0\n  for (element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the
sum of all values produced by [selector] function applied to each element in the array.\n */\npublic inline fun
ByteArray.sumBy(selector: (Byte) -> Int): Int {\n  var sum: Int = 0\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n */\npublic inline fun ShortArray.sumBy(selector: (Short) -> Int): Int {\n
var sum: Int = 0\n  for (element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns
the sum of all values produced by [selector] function applied to each element in the array.\n */\npublic inline fun
IntArray.sumBy(selector: (Int) -> Int): Int {\n  var sum: Int = 0\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n */\npublic inline fun LongArray.sumBy(selector: (Long) -> Int): Int {\n
var sum: Int = 0\n  for (element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns
the sum of all values produced by [selector] function applied to each element in the array.\n */\npublic inline fun
FloatArray.sumBy(selector: (Float) -> Int): Int {\n  var sum: Int = 0\n  for (element in this) {\n    sum +=
selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each element in the array.\n */\npublic inline fun DoubleArray.sumBy(selector: (Double) -> Int): Int {\n
var sum: Int = 0\n  for (element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n *
Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\npublic
inline fun BooleanArray.sumBy(selector: (Boolean) -> Int): Int {\n  var sum: Int = 0\n  for (element in this) {\n
sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the array.\n */\npublic inline fun CharArray.sumBy(selector: (Char) -> Int): Int
{\n  var sum: Int = 0\n  for (element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n *
Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\npublic
inline fun <T> Array<out T>.sumByDouble(selector: (T) -> Double): Double {\n  var sum: Double = 0.0\n  for
(element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n */\npublic inline fun
ByteArray.sumByDouble(selector: (Byte) -> Double): Double {\n  var sum: Double = 0.0\n  for (element in this)
{\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n */\npublic inline fun ShortArray.sumByDouble(selector:
(Short) -> Double): Double {\n  var sum: Double = 0.0\n  for (element in this) {\n    sum += selector(element)\n
  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each
element in the array.\n */\npublic inline fun IntArray.sumByDouble(selector: (Int) -> Double): Double {\n  var
sum: Double = 0.0\n  for (element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n *
Returns the sum of all values produced by [selector] function applied to each element in the array.\n */\npublic
inline fun LongArray.sumByDouble(selector: (Long) -> Double): Double {\n  var sum: Double = 0.0\n  for
(element in this) {\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values
produced by [selector] function applied to each element in the array.\n */\npublic inline fun
FloatArray.sumByDouble(selector: (Float) -> Double): Double {\n  var sum: Double = 0.0\n  for (element in this)
{\n    sum += selector(element)\n  }\n  return sum\n}\n\n/**\n * Returns the sum of all values produced by

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contains elements for which [predicate] yielded `false`.\n \*/\npublic inline fun BooleanArray.partition(predicate: (Boolean) -> Boolean): Pair<List<Boolean>, List<Boolean>> {\n val first = ArrayList<Boolean>()\n val second = ArrayList<Boolean>()\n for (element in this) {\n if (predicate(element)) {\n first.add(element)\n } else {\n second.add(element)\n }\n }\n return Pair(first, second)\n}\n\n/\* Splits the original array into pair of lists,\n \* where \*first\* list contains elements for which [predicate] yielded `true`,\n \* while \*second\* list contains elements for which [predicate] yielded `false`.\n \*/\n\npublic inline fun CharArray.partition(predicate: (Char) -> Boolean): Pair<List<Char>, List<Char>> {\n val first = ArrayList<Char>()\n val second = ArrayList<Char>()\n for (element in this) {\n if (predicate(element)) {\n first.add(element)\n } else {\n second.add(element)\n }\n }\n return Pair(first, second)\n}\n\n/\* Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n \* The returned list has length of the shortest collection.\n \*/\n\n@sample\n\nsamples.collections.Iterables.Operations.zipIterable\n\n/\*\n\npublic infix fun <T, R> Array<out T>.zip(other: Array<out R>): List<Pair<T, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/\* Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n \* The returned list has length of the shortest collection.\n \*/\n\n@sample\n\nsamples.collections.Iterables.Operations.zipIterable\n\n/\*\n\npublic infix fun <R> ByteArray.zip(other: Array<out R>): List<Pair<Byte, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/\* Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n \* The returned list has length of the shortest collection.\n \*/\n\n@sample\n\nsamples.collections.Iterables.Operations.zipIterable\n\n/\*\n\npublic infix fun <R> ShortArray.zip(other: Array<out R>): List<Pair<Short, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/\* Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n \* The returned list has length of the shortest collection.\n \*/\n\n@sample\n\nsamples.collections.Iterables.Operations.zipIterable\n\n/\*\n\npublic infix fun <R> IntArray.zip(other: Array<out R>): List<Pair<Int, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/\* Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n \* The returned list has length of the shortest collection.\n \*/\n\n@sample\n\nsamples.collections.Iterables.Operations.zipIterable\n\n/\*\n\npublic infix fun <R> LongArray.zip(other: Array<out R>): List<Pair<Long, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/\* Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n \* The 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return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/\* Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n \* The returned list has length of the shortest collection.\n \*/\n\n@sample\n\nsamples.collections.Iterables.Operations.zipIterable\n\n/\*\n\npublic infix fun <R> CharArray.zip(other: Array<out R>): List<Pair<Char, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/\* Returns a list of values built from the elements of `this` array and the [other] array with the same index\n \* using the provided [transform] function applied to each pair of elements.\n \* The returned list has length of the shortest collection.\n \*/\n\n@sample\n\nsamples.collections.Iterables.Operations.zipIterableWithTransform\n\n/\*\n\npublic inline fun <T, R, V> Array<out T>.zip(other: Array<out R>, transform: (a: T, b: R) -> V): List<V> {\n val size = minOf(size, other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n }\n return list\n}\n\n/\* Returns a list of values built from the elements of `this` array and the [other] array with the same index\n \* using the provided [transform] function applied to each pair of elements.\n \* The returned list has length

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of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
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size = minOf(size, other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n
list.add(transform(this[i], other[i]))\n  }\n  return list\n}\n\n/**\n * Returns a list of values built from the elements
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samples.collections.Iterables.Operations.zipIterableWithTransform\n
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ShortArray.zip(other: Array<out R>, transform: (a: Short, b: R) -> V): List<V> {\n  val size = minOf(size,
other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n
}\n  return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
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*\npublic inline fun <R, V>
IntArray.zip(other: Array<out R>, transform: (a: Int, b: R) -> V): List<V> {\n  val size = minOf(size, other.size)\n
val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n  }\n  return
list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array with the same
index\n * using the provided [transform] function applied to each pair of elements.\n * The returned list has length
of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\npublic inline fun <R, V>
LongArray.zip(other: Array<out R>, transform: (a: Long, b: R) -> V): List<V> {\n  val
size = minOf(size, other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n
list.add(transform(this[i], other[i]))\n  }\n  return list\n}\n\n/**\n * Returns a list of values built from the elements
of `this` array and the [other] array with the same index\n * using the provided [transform] function applied to each
pair of elements.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\npublic inline fun <R, V>
FloatArray.zip(other: Array<out R>, transform: (a: Float, b: R) -> V): List<V> {\n  val size = minOf(size,
other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n
}\n  return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest collection.\n * \n * @sample
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*\npublic inline fun <R, V>
DoubleArray.zip(other: Array<out R>, transform: (a: Double, b: R) -> V): List<V> {\n  val size = minOf(size,
other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n
}\n  return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
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BooleanArray.zip(other: Array<out R>, transform: (a: Boolean, b: R) -> V): List<V> {\n  val size = minOf(size,
other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n
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other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n
}\n  return list\n}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with
the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n
*\npublic infix fun <T, R> Array<out T>.zip(other:
Iterable<R>): List<Pair<T, R>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built

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from the elements of `this` collection and [other] array with the same index. \n \* The returned list has length of the shortest collection. \n \* \n \* @sample samples.collections.Iterables.Operations.zipIterable \n \* \n public infix fun <R> ByteArray.zip(other: Iterable<R>): List<Pair<Byte, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n \n /\*\* \n \* Returns a list of pairs built from the elements of `this` collection and [other] array with the same index. \n \* The returned list has length of the shortest collection. \n \* \n \* @sample samples.collections.Iterables.Operations.zipIterable \n \* \n public infix fun <R> ShortArray.zip(other: Iterable<R>): List<Pair<Short, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n \n /\*\* \n \* Returns a list of pairs built from the elements of `this` collection and [other] array with the same index. \n \* The returned list has length of the shortest collection. \n \* \n \* @sample 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ShortArray.zip(other: Iterable<R>, transform: (a: Short, b: R) -> V): List<V> {\n val arraySize = size\n val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n var i = 0\n for (element in other) {\n if (i >= arraySize) break\n list.add(transform(this[i++], element))\n }\n return list\n}\n \n /\*\* \n \* Returns a list of values built from the elements of `this` array and the [other] collection with the same index \n \* using the provided [transform] function applied to each pair of elements. \n \* The returned list has

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ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n  var i = 0\n  for (element in other) {\n
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fun <R, V> DoubleArray.zip(other: Iterable<R>, transform: (a: Double, b: R) -> V): List<V> {\n  val arraySize =
size\n  val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n  var i = 0\n  for (element
in other) {\n    if (i >= arraySize) break\n    list.add(transform(this[i++], element))\n  }\n  return
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list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n  var i = 0\n  for (element in other)
{\n    if (i >= arraySize) break\n    list.add(transform(this[i++], element))\n  }\n  return list\n}\n\n/**\n *
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arraySize = size\n  val list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n  var i = 0\n
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index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n *^\npublic infix fun ByteArray.zip(other: ByteArray):
List<Pair<Byte, Byte>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from
the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the
shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n *^\npublic infix fun
ShortArray.zip(other: ShortArray): List<Pair<Short, Short>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n
* Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The
returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n *^\npublic infix fun IntArray.zip(other: IntArray):
List<Pair<Int, Int>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from the

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samples.collections.Iterables.Operations.zipIterableWithTransform\n *\npublic inline fun <V>
DoubleArray.zip(other: DoubleArray, transform: (a: Double, b: Double) -> V): List<V> {\n  val size = minOf(size,
other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n  }\n  return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n *\npublic inline fun <V>
BooleanArray.zip(other: BooleanArray, transform: (a: Boolean, b: Boolean) -> V): List<V> {\n  val size =
minOf(size, other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i],
other[i]))\n  }\n  return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the
[other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n *
The returned list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n *\npublic inline fun <V>
CharArray.zip(other: CharArray, transform: (a: Char, b: Char) -> V): List<V> {\n  val size = minOf(size,
other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n  }\n  return list\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the
given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value
of [limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string
(which defaults to "...").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n *\npublic fun
<T, A : Appendable> Array<out T>.joinTo(buffer: A, separator: CharSequence = "\", \"", prefix: CharSequence = "\"",
postfix: CharSequence = "\"", limit: Int = -1, truncated: CharSequence = "...", transform: ((T) -> CharSequence)? =
null): A {\n  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if (++count > 1)
buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n      buffer.appendElement(element, transform)\n
    } else break\n  }\n  if (limit >= 0 && count > limit) buffer.append(truncated)\n  buffer.append(postfix)\n}
return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of
[limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which
defaults to "...").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n *\npublic fun <A :
Appendable> ByteArray.joinTo(buffer: A, separator: CharSequence = "\", \"", prefix: CharSequence = "\"", postfix:
CharSequence = "\"", limit: Int = -1, truncated: CharSequence = "...", transform: ((Byte) -> CharSequence)? =
null): A {\n  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if (++count > 1)
buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n      if (transform != null)\n        buffer.append(transform(element))\n      else\n        buffer.append(element.toString())\n    } else break\n  }\n  if (limit >= 0 && count > limit) buffer.append(truncated)\n  buffer.append(postfix)\n}
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defaults to "...").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n *\npublic fun <A :
Appendable> ShortArray.joinTo(buffer: A, separator: CharSequence = "\", \"", prefix: CharSequence = "\"", postfix:
CharSequence = "\"", limit: Int = -1, truncated: CharSequence = "...", transform: ((Short) -> CharSequence)? =
null): A {\n  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if (++count > 1)
buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n      if (transform != null)\n        buffer.append(transform(element))\n      else\n        buffer.append(element.toString())\n    } else break\n  }\n  if (limit >= 0 && count > limit) buffer.append(truncated)\n  buffer.append(postfix)\n}
return buffer\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of
[limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which
defaults to "...").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n *\npublic fun <A :

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Appendable> IntArray.joinTo(buffer: A, separator: CharSequence = "\", \", prefix: CharSequence = \"\", postfix:
CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Int) -> CharSequence)? = null):
A {\n  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if (++count > 1)
buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n      if (transform != null)\nbuffer.append(transform(element))\n      else\n        buffer.append(element.toString())\n    } else break\n  }\n  if (limit >= 0 && count > limit) buffer.append(truncated)\n  buffer.append(postfix)\n  return
buffer}\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of
[limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which
defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A :
Appendable> LongArray.joinTo(buffer: A, separator: CharSequence = "\", \", prefix: CharSequence = \"\", postfix:
CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Long) -> CharSequence)? =
null): A {\n  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if (++count > 1)
buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n      if (transform != null)\nbuffer.append(transform(element))\n      else\n        buffer.append(element.toString())\n    } else break\n  }\n  if (limit >= 0 && count > limit) buffer.append(truncated)\n  buffer.append(postfix)\n  return
buffer}\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of
[limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which
defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A :
Appendable> FloatArray.joinTo(buffer: A, separator: CharSequence = "\", \", prefix: CharSequence = \"\", postfix:
CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Float) -> CharSequence)? =
null): A {\n  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if (++count > 1)
buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n      if (transform != null)\nbuffer.append(transform(element))\n      else\n        buffer.append(element.toString())\n    } else break\n  }\n  if (limit >= 0 && count > limit) buffer.append(truncated)\n  buffer.append(postfix)\n  return
buffer}\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of
[limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which
defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A :
Appendable> DoubleArray.joinTo(buffer: A, separator: CharSequence = "\", \", prefix: CharSequence = \"\", postfix:
CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Double) -> CharSequence)? =
null): A {\n  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if (++count > 1)
buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n      if (transform != null)\nbuffer.append(transform(element))\n      else\n        buffer.append(element.toString())\n    } else break\n  }\n  if (limit >= 0 && count > limit) buffer.append(truncated)\n  buffer.append(postfix)\n  return
buffer}\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of
[limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which
defaults to \"...\").\n * \n * @sample samples.collections.Collections.Transformations.joinTo\n */\npublic fun <A :
Appendable> BooleanArray.joinTo(buffer: A, separator: CharSequence = "\", \", prefix: CharSequence = \"\", postfix:
CharSequence = \"\", limit: Int = -1, truncated: CharSequence = \"...\", transform: ((Boolean) ->
CharSequence)? = null): A {\n  buffer.append(prefix)\n  var count = 0\n  for (element in this) {\n    if (++count
> 1) buffer.append(separator)\n    if (limit < 0 || count <= limit) {\n      if (transform != null)\nbuffer.append(transform(element))\n      else\n        buffer.append(element.toString())\n    } else break\n  }\n  if (limit >= 0 && count > limit) buffer.append(truncated)\n  buffer.append(postfix)\n  return
buffer}\n}\n\n/**\n * Appends the string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of

```

[limit], in which case only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").

```

@sample samples.collections.Collections.Transformations.joinTo<A>
Appendable> CharArray.joinTo(buffer: A, separator: CharSequence = ", ", prefix: CharSequence = "\", postfix:
CharSequence = "\", limit: Int = -1, truncated: CharSequence = "...", transform: ((Char) -> CharSequence)? =
null): A {
    buffer.append(prefix)
    var count = 0
    for (element in this) {
        if (++count > 1)
            buffer.append(separator)
        if (limit < 0 || count <= limit) {
            if (transform != null)
                buffer.append(transform(element))
            else
                buffer.append(element)
        } else break
    }
    if (limit >= 0 && count > limit)
        buffer.append(truncated)
    buffer.append(postfix)
    return buffer
}

```

Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.

If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").

```

@sample samples.collections.Collections.Transformations.joinToString
T>.joinToString(separator: CharSequence = ", ", prefix: CharSequence = "\", postfix: CharSequence = "\", limit:
Int = -1, truncated: CharSequence = "...", transform: ((T) -> CharSequence)? = null): String {
    return
    joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()
}

```

Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.

If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").

```

@sample samples.collections.Collections.Transformations.joinToString
ByteArray.joinToString(separator:
CharSequence = ", ", prefix: CharSequence = "\", postfix: CharSequence = "\", limit: Int = -1, truncated:
CharSequence = "...", transform: ((Byte) -> CharSequence)? = null): String {
    return joinTo(StringBuilder(),
separator, prefix, postfix, limit, truncated, transform).toString()
}

```

Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.

If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").

```

@sample samples.collections.Collections.Transformations.joinToString
ShortArray.joinToString(separator:
CharSequence = ", ", prefix: CharSequence = "\", postfix: CharSequence = "\", limit: Int = -1, truncated:
CharSequence = "...", transform: ((Short) -> CharSequence)? = null): String {
    return joinTo(StringBuilder(),
separator, prefix, postfix, limit, truncated, transform).toString()
}

```

Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.

If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").

```

@sample samples.collections.Collections.Transformations.joinToString
IntArray.joinToString(separator:
CharSequence = ", ", prefix: CharSequence = "\", postfix: CharSequence = "\", limit: Int = -1, truncated:
CharSequence = "...", transform: ((Int) -> CharSequence)? = null): String {
    return joinTo(StringBuilder(),
separator, prefix, postfix, limit, truncated, transform).toString()
}

```

Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.

If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").

```

@sample samples.collections.Collections.Transformations.joinToString
LongArray.joinToString(separator:
CharSequence = ", ", prefix: CharSequence = "\", postfix: CharSequence = "\", limit: Int = -1, truncated:
CharSequence = "...", transform: ((Long) -> CharSequence)? = null): String {
    return joinTo(StringBuilder(),
separator, prefix, postfix, limit, truncated, transform).toString()
}

```

Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if supplied.

If the collection could be huge, you can specify a non-negative value of [limit], in which case only the first [limit] elements will be appended, followed by the [truncated] string (which defaults to "...").

```

@sample samples.collections.Collections.Transformations.joinToString
FloatArray.joinToString(separator:
CharSequence = ", ", prefix: CharSequence = "\", postfix: CharSequence = "\", limit: Int = -1, truncated:
CharSequence = "...", transform: ((Float) -> CharSequence)? = null): String {
    return joinTo(StringBuilder(),
separator, prefix, postfix, limit, truncated, transform).toString()
}

```



```

Sequence<Byte> {\n  if (isEmpty()) return emptySequence()\n  return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun ShortArray.asSequence():
Sequence<Short> {\n  if (isEmpty()) return emptySequence()\n  return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun IntArray.asSequence():
Sequence<Int> {\n  if (isEmpty()) return emptySequence()\n  return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun LongArray.asSequence():
Sequence<Long> {\n  if (isEmpty()) return emptySequence()\n  return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun FloatArray.asSequence():
Sequence<Float> {\n  if (isEmpty()) return emptySequence()\n  return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun DoubleArray.asSequence():
Sequence<Double> {\n  if (isEmpty()) return emptySequence()\n  return Sequence { this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic fun
BooleanArray.asSequence(): Sequence<Boolean> {\n  if (isEmpty()) return emptySequence()\n  return Sequence
{ this.iterator() }\n}\n\n/**\n *
Creates a [Sequence] instance that wraps the original array returning its elements
when being iterated.\n * \n *
@sample samples.collections.Sequences.Building.sequenceFromArray\n */\npublic
fun CharArray.asSequence(): Sequence<Char> {\n  if (isEmpty()) return emptySequence()\n  return Sequence {
this.iterator() }\n}\n\n/**\n *
Returns an average value of elements in the array.\n
*/\n\n@kotlin.jvm.JvmName("averageOfByte")\npublic fun Array<out Byte>.average(): Double {\n  var sum:
Double = 0.0\n  var count: Int = 0\n  for (element in this) {\n    sum += element\n    ++count\n  }\n  return
if (count == 0) Double.NaN else sum / count\n}\n\n/**\n *
Returns an average value of elements in the array.\n
*/\n\n@kotlin.jvm.JvmName("averageOfShort")\npublic fun Array<out Short>.average(): Double {\n  var sum:
Double = 0.0\n  var count: Int = 0\n  for (element in this) {\n    sum += element\n    ++count\n  }\n  return
if (count == 0) Double.NaN else sum / count\n}\n\n/**\n *
Returns an average value of elements in the array.\n
*/\n\n@kotlin.jvm.JvmName("averageOfInt")\npublic fun Array<out Int>.average(): Double {\n  var sum: Double
= 0.0\n  var count: Int = 0\n  for (element in this) {\n    sum += element\n    ++count\n  }\n  return if (count
== 0) Double.NaN else sum / count\n}\n\n/**\n *
Returns an average value of elements in the array.\n
*/\n\n@kotlin.jvm.JvmName("averageOfLong")\npublic fun Array<out Long>.average(): Double {\n  var sum:
Double = 0.0\n  var count: Int = 0\n  for (element in this) {\n    sum += element\n    ++count\n  }\n  return
if (count == 0) Double.NaN else sum / count\n}\n\n/**\n *
Returns an average value of elements in the array.\n
*/\n\n@kotlin.jvm.JvmName("averageOfFloat")\npublic fun Array<out Float>.average(): Double {\n  var sum:
Double = 0.0\n  var count: Int = 0\n  for (element in this) {\n    sum += element\n    ++count\n  }\n  return
if (count == 0) Double.NaN else sum / count\n}\n\n/**\n *
Returns an average value of elements in the array.\n
*/\n\n@kotlin.jvm.JvmName("averageOfDouble")\npublic fun Array<out Double>.average(): Double {\n  var sum:
Double = 0.0\n  var count: Int = 0\n  for (element in this) {\n    sum += element\n    ++count\n  }\n  return
if (count == 0) Double.NaN else sum / count\n}\n\n/**\n *
Returns an average value of elements in the array.\n
*/\n\npublic fun ByteArray.average(): Double {\n  var sum: Double = 0.0\n  var count: Int = 0\n  for (element in
this) {\n    sum += element\n    ++count\n  }\n  return if (count == 0) Double.NaN else sum /
count\n}\n\n/**\n *
Returns an average value of elements in the array.\n
*/\n\npublic fun ShortArray.average():
Double {\n  var sum: Double = 0.0\n  var count: Int = 0\n  for (element in this) {\n    sum += element\n
++count\n  }\n  return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n *
Returns an average value of
elements in the array.\n
*/\n\npublic fun IntArray.average(): Double {\n  var sum: Double = 0.0\n  var count: Int =
0\n  for (element in this) {\n    sum += element\n    ++count\n  }\n  return if (count == 0) Double.NaN else

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sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun LongArray.average():
Double {\n    var sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n        ++count\n    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of
elements in the array.\n */\npublic fun FloatArray.average(): Double {\n    var sum: Double = 0.0\n    var count: Int
= 0\n    for (element in this) {\n        sum += element\n        ++count\n    }\n    return if (count == 0) Double.NaN
else sum / count\n}\n\n/**\n * Returns an average value of elements in the array.\n */\npublic fun
DoubleArray.average(): Double {\n    var sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n
sum += element\n        ++count\n    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName("sumOfByte")\npublic fun Array<out
Byte>.sum(): Int {\n    var sum: Int = 0\n    for (element in this) {\n        sum += element\n    }\n    return
sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName("sumOfShort")\npublic fun Array<out Short>.sum(): Int {\n    var sum: Int = 0\n    for
(element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the
array.\n */\n@kotlin.jvm.JvmName("sumOfInt")\npublic fun Array<out Int>.sum(): Int {\n    var sum: Int = 0\n    for
(element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in
the array.\n */\n@kotlin.jvm.JvmName("sumOfLong")\npublic fun Array<out Long>.sum(): Long {\n    var sum:
Long = 0L\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of
all elements in the array.\n */\n@kotlin.jvm.JvmName("sumOfFloat")\npublic fun Array<out Float>.sum(): Float
{\n    var sum: Float = 0.0f\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n *
Returns the sum of all elements in the array.\n */\n@kotlin.jvm.JvmName("sumOfDouble")\npublic fun Array<out
Double>.sum(): Double {\n    var sum: Double = 0.0\n    for (element in this) {\n        sum += element\n    }\n
return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun ByteArray.sum(): Int {\n
var sum: Int = 0\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the
sum of all elements in the array.\n */\npublic fun ShortArray.sum(): Int {\n    var sum: Int = 0\n    for (element in
this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*/\npublic fun IntArray.sum(): Int {\n    var sum: Int = 0\n    for (element in this) {\n        sum += element\n    }\n
return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n */\npublic fun LongArray.sum(): Long {\n
var sum: Long = 0L\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the
sum of all elements in the array.\n */\npublic fun FloatArray.sum(): Float {\n    var sum: Float = 0.0f\n    for
(element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the
array.\n */\npublic fun DoubleArray.sum(): Double {\n    var sum: Double = 0.0\n    for (element in this) {\n
sum += element\n    }\n    return sum\n}\n\n"/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("RangesKt")\n\npackage
kotlin.ranges\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\n\n/**\n * Returns a
random element from this range.\n */\n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun IntRange.random(): Int {\n    return
random(Random)\n}\n\n/**\n * Returns a random element from this range.\n */\n * @throws
IllegalArgumentException if this range is empty.\n */\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic
inline fun LongRange.random(): Long {\n    return random(Random)\n}\n\n/**\n * Returns a random element from
this range.\n */\n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun CharRange.random(): Char {\n    return
random(Random)\n}\n\n/**\n * Returns a random element from this range using the specified source of
randomness.\n */\n * @throws IllegalArgumentException if this range is empty.\n */\n@SinceKotlin("1.3")\npublic fun IntRange.random(random: Random): Int {\n    try {\n        return
random.nextInt(this)\n    } catch (e: IllegalArgumentException) {\n        throw

```

```

NoSuchElementException(e.message)\n    }\n}\n\n/**\n * Returns a random element from this range using the
specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n
*\n*\n@SinceKotlin("1.3")\npublic fun LongRange.random(random: Random): Long {\n    try {\n        return
random.nextLong(this)\n    } catch(e: IllegalArgumentException) {\n        throw
NoSuchElementException(e.message)\n    }\n}\n\n/**\n * Returns a random element from this range using the
specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n
*\n*\n@SinceKotlin("1.3")\npublic fun CharRange.random(random: Random): Char {\n    try {\n        return
random.nextInt(first.toInt(), last.toInt() + 1).toChar()\n    } catch(e: IllegalArgumentException) {\n        throw
NoSuchElementException(e.message)\n    }\n}\n\n/**\n * Returns `true` if this range contains the specified
[element].\n * \n * Always returns `false` if the [element] is `null`.\n
*\n*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline operator fun IntRange.contains(element:
Int?): Boolean {\n    return element != null && contains(element)\n}\n\n/**\n * Returns `true` if this range contains
the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n
*\n*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline operator fun LongRange.contains(element:
Long?): Boolean {\n    return element != null && contains(element)\n}\n\n/**\n * Returns `true` if this range
contains the specified [element].\n * \n * Always returns `false` if the [element] is `null`.\n
*\n*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline operator fun CharRange.contains(element:
Char?): Boolean {\n    return element != null && contains(element)\n}\n\n/**\n * Checks if the specified [value]
belongs to this range.\n *\n@kotlin.jvm.JvmName("intRangeContains")\npublic operator fun
ClosedRange<Int>.contains(value: Byte): Boolean {\n    return contains(value.toInt())\n}\n\n/**\n * Checks if the
specified [value] belongs to this range.\n *\n@kotlin.jvm.JvmName("longRangeContains")\npublic operator fun
ClosedRange<Long>.contains(value: Byte): Boolean {\n    return contains(value.toLong())\n}\n\n/**\n * Checks if
the specified [value] belongs to this range.\n *\n@kotlin.jvm.JvmName("shortRangeContains")\npublic operator
fun ClosedRange<Short>.contains(value: Byte): Boolean {\n    return contains(value.toShort())\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n *\n@Deprecated("This `contains` operation mixing integer
and floating point arguments has ambiguous semantics and is going to be
removed.")\n@kotlin.jvm.JvmName("doubleRangeContains")\npublic operator fun
ClosedRange<Double>.contains(value: Byte): Boolean {\n    return contains(value.toDouble())\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n *\n@Deprecated("This `contains` operation mixing integer
and floating point arguments has ambiguous semantics and is going to be
removed.")\n@kotlin.jvm.JvmName("floatRangeContains")\npublic operator fun
ClosedRange<Float>.contains(value: Byte): Boolean {\n    return contains(value.toFloat())\n}\n\n/**\n * Checks if
the specified [value] belongs to this range.\n *\n@Deprecated("This `contains` operation mixing integer and
floating point arguments has ambiguous semantics and is going to be
removed.")\n@kotlin.jvm.JvmName("intRangeContains")\npublic operator fun ClosedRange<Int>.contains(value:
Double): Boolean {\n    return value.toIntExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n *\n@Deprecated("This `contains` operation mixing integer
and floating point arguments has ambiguous semantics and is going to be
removed.")\n@kotlin.jvm.JvmName("longRangeContains")\npublic operator fun
ClosedRange<Long>.contains(value: Double): Boolean {\n    return value.toLongExactOrNull().let { if (it != null)
contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n
*\n@Deprecated("This `contains` operation mixing integer and floating point arguments has ambiguous semantics
and is going to be removed.")\n@kotlin.jvm.JvmName("byteRangeContains")\npublic operator fun
ClosedRange<Byte>.contains(value: Double): Boolean {\n    return value.toByteExactOrNull().let { if (it != null)
contains(it) else false }\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n
*\n@Deprecated("This `contains` operation mixing integer and floating point arguments has ambiguous semantics
and is going to be removed.")\n@kotlin.jvm.JvmName("shortRangeContains")\npublic operator fun
ClosedRange<Short>.contains(value: Double): Boolean {\n    return value.toShortExactOrNull().let { if (it != null)
contains(it) else false }\n}\n

```



and floating point arguments has ambiguous semantics and is going to be removed.\n\n@kotlin.jvm.JvmName("floatRangeContains")\n\npublic operator fun ClosedRange<Float>.contains(value: Long): Boolean {\n return contains(value.toFloat())\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*/\n\n@kotlin.jvm.JvmName("intRangeContains")\n\npublic operator fun ClosedRange<Int>.contains(value: Short): Boolean {\n return contains(value.toInt())\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*/\n\n@kotlin.jvm.JvmName("longRangeContains")\n\npublic operator fun ClosedRange<Long>.contains(value: Short): Boolean {\n return contains(value.toLong())\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*/\n\n@kotlin.jvm.JvmName("byteRangeContains")\n\npublic operator fun ClosedRange<Byte>.contains(value: Short): Boolean {\n return value.toByteExactOrNull().let { if (it != null) contains(it) else false }\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*/\n\n@Deprecated("This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.")\n\n@kotlin.jvm.JvmName("doubleRangeContains")\n\npublic operator fun ClosedRange<Double>.contains(value: Short): Boolean {\n return contains(value.toDouble())\n}\n\n/\*\*\n \* Checks if the specified [value] belongs to this range.\n \*/\n\n@Deprecated("This `contains` operation mixing integer and floating point arguments has ambiguous semantics and is going to be removed.")\n\n@kotlin.jvm.JvmName("floatRangeContains")\n\npublic operator fun ClosedRange<Float>.contains(value: Short): Boolean {\n return contains(value.toFloat())\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\n\npublic infix fun Int.downTo(to: Byte): IntProgression {\n return IntProgression.fromClosedRange(this, to.toInt(), -1)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\n\npublic infix fun Long.downTo(to: Byte): LongProgression {\n return LongProgression.fromClosedRange(this, to.toLong(), -1L)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\n\npublic infix fun Byte.downTo(to: Byte): IntProgression {\n return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\n\npublic infix fun Short.downTo(to: Byte): IntProgression {\n return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\n\npublic infix fun Char.downTo(to: Char): CharProgression {\n return CharProgression.fromClosedRange(this, to, -1)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\n\npublic infix fun Int.downTo(to: Int): IntProgression {\n return IntProgression.fromClosedRange(this, to, -1)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\n\npublic infix fun Long.downTo(to: Int): LongProgression {\n return LongProgression.fromClosedRange(this, to.toLong(), -1L)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\n\npublic infix fun Byte.downTo(to: Int): IntProgression {\n return IntProgression.fromClosedRange(this.toInt(), to, -1)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\n\npublic infix fun Short.downTo(to: Int): IntProgression {\n return IntProgression.fromClosedRange(this.toInt(), to, -1)\n}\n\n/\*\*\n \* Returns a progression from this value down to the

specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\npublic infix fun Int.downTo(to: Long): LongProgression {\n return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\npublic infix fun Long.downTo(to: Long): LongProgression {\n return LongProgression.fromClosedRange(this, to, -1L)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\npublic infix fun Byte.downTo(to: Long): LongProgression {\n return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\npublic infix fun Short.downTo(to: Long): LongProgression {\n return LongProgression.fromClosedRange(this.toLong(), to, -1L)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\npublic infix fun Int.downTo(to: Short): IntProgression {\n return IntProgression.fromClosedRange(this, to.toInt(), -1)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\npublic infix fun Long.downTo(to: Short): LongProgression {\n return LongProgression.fromClosedRange(this, to.toLong(), -1L)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\npublic infix fun Byte.downTo(to: Short): IntProgression {\n return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/\*\*\n \* Returns a progression from this value down to the specified [to] value with the step -1.\n \* \n \* The [to] value should be less than or equal to `this` value.\n \* If the [to] value is greater than `this` value the returned progression is empty.\n \*/\npublic infix fun Short.downTo(to: Short): IntProgression {\n return IntProgression.fromClosedRange(this.toInt(), to.toInt(), -1)\n}\n\n/\*\*\n \* Returns a progression that goes over the same range in the opposite direction with the same step.\n \*/\npublic fun IntProgression.reversed(): IntProgression {\n return IntProgression.fromClosedRange(last, first, -step)\n}\n\n/\*\*\n \* Returns a progression that goes over the same range in the opposite direction with the same step.\n \*/\npublic fun LongProgression.reversed(): LongProgression {\n return LongProgression.fromClosedRange(last, first, -step)\n}\n\n/\*\*\n \* Returns a progression that goes over the same range in the opposite direction with the same step.\n \*/\npublic fun CharProgression.reversed(): CharProgression {\n return CharProgression.fromClosedRange(last, first, -step)\n}\n\n/\*\*\n \* Returns a progression that goes over the same range with the given step.\n \*/\npublic infix fun IntProgression.step(step: Int): IntProgression {\n checkStepIsPositive(step > 0, step)\n return IntProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/\*\*\n \* Returns a progression that goes over the same range with the given step.\n \*/\npublic infix fun LongProgression.step(step: Long): LongProgression {\n checkStepIsPositive(step > 0, step)\n return LongProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/\*\*\n \* Returns a progression that goes over the same range with the given step.\n \*/\npublic infix fun CharProgression.step(step: Int): CharProgression {\n checkStepIsPositive(step > 0, step)\n return CharProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\ninternal fun Int.toByteExactOrNull(): Byte? {\n return if (this in Byte.MIN\_VALUE.toInt()..Byte.MAX\_VALUE.toInt()) this.toByte() else null\n}\n\ninternal fun Long.toByteExactOrNull(): Byte? {\n return if (this in Byte.MIN\_VALUE.toLong()..Byte.MAX\_VALUE.toLong()) this.toByte() else null\n}\n\ninternal fun Short.toByteExactOrNull(): Byte? {\n return if (this in Byte.MIN\_VALUE.toShort()..Byte.MAX\_VALUE.toShort()) this.toByte() else null\n}\n\ninternal fun Double.toByteExactOrNull(): Byte? {\n return if (this in

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Byte.MIN_VALUE.toDouble()..Byte.MAX_VALUE.toDouble()) this.toByte() else null\n}\n\ninternal fun
Float.toByteExactOrNull(): Byte? {\n    return if (this in
Byte.MIN_VALUE.toFloat()..Byte.MAX_VALUE.toFloat()) this.toByte() else null\n}\n\ninternal fun
Long.toIntExactOrNull(): Int? {\n    return if (this in Int.MIN_VALUE.toLong()..Int.MAX_VALUE.toLong())
this.toInt() else null\n}\n\ninternal fun Double.toIntExactOrNull(): Int? {\n    return if (this in
Int.MIN_VALUE.toDouble()..Int.MAX_VALUE.toDouble()) this.toInt() else null\n}\n\ninternal fun
Float.toIntExactOrNull(): Int? {\n    return if (this in Int.MIN_VALUE.toFloat()..Int.MAX_VALUE.toFloat())
this.toInt() else null\n}\n\ninternal fun Double.toLongExactOrNull(): Long? {\n    return if (this in
Long.MIN_VALUE.toDouble()..Long.MAX_VALUE.toDouble()) this.toLong() else null\n}\n\ninternal fun
Float.toLongExactOrNull(): Long? {\n    return if (this in
Long.MIN_VALUE.toFloat()..Long.MAX_VALUE.toFloat()) this.toLong() else null\n}\n\ninternal fun
Int.toShortExactOrNull(): Short? {\n    return if (this in Short.MIN_VALUE.toInt()..Short.MAX_VALUE.toInt())
this.toShort() else null\n}\n\ninternal fun Long.toShortExactOrNull(): Short? {\n    return if (this in
Short.MIN_VALUE.toLong()..Short.MAX_VALUE.toLong()) this.toShort() else null\n}\n\ninternal fun
Double.toShortExactOrNull(): Short? {\n    return if (this in
Short.MIN_VALUE.toDouble()..Short.MAX_VALUE.toDouble()) this.toShort() else null\n}\n\ninternal fun
Float.toShortExactOrNull(): Short? {\n    return if (this in
Short.MIN_VALUE.toFloat()..Short.MAX_VALUE.toFloat()) this.toShort() else null\n}\n\n/**\n * Returns a range
from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this`
value, then the returned range is empty.\n */\npublic infix fun Int.until(to: Byte): IntRange {\n    return this ..
(to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n *
\n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun
Long.until(to: Byte): LongRange {\n    return this .. (to.toLong() - 1).toLong()\n}\n\n/**\n * Returns a range from
this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this`
value, then the returned range is empty.\n */\npublic infix fun Byte.until(to: Byte): IntRange {\n    return this.toInt() ..
(to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n *
\n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun
Short.until(to: Byte): IntRange {\n    return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/**\n * Returns a range from
this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this`
value, then the returned range is empty.\n */\npublic infix fun Char.until(to: Char): CharRange {\n    if (to <= '\u0000')
return CharRange.EMPTY\n    return this .. (to - 1).toChar()\n}\n\n/**\n * Returns a range from this value up to but
excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned
range is empty.\n */\npublic infix fun Int.until(to: Int): IntRange {\n    if (to <= Int.MIN_VALUE) return
IntRange.EMPTY\n    return this .. (to - 1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding
the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is
empty.\n */\npublic infix fun Long.until(to: Int): LongRange {\n    return this .. (to.toLong() -
1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the
[to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Byte.until(to:
Int): IntRange {\n    if (to <= Int.MIN_VALUE) return IntRange.EMPTY\n    return this.toInt() .. (to -
1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the
[to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Short.until(to:
Int): IntRange {\n    if (to <= Int.MIN_VALUE) return IntRange.EMPTY\n    return this.toInt() .. (to -
1).toInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the
[to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Int.until(to:
Long): LongRange {\n    if (to <= Long.MIN_VALUE) return LongRange.EMPTY\n    return this.toLong() .. (to -
1).toLong()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to] value.\n * \n * If the
[to] value is less than or equal to `this` value, then the returned range is empty.\n */\npublic infix fun Long.until(to:
Long): LongRange {\n    if (to <= Long.MIN_VALUE) return LongRange.EMPTY\n    return this .. (to -

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1).toLong()\n\n/\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Byte.until(to: Long): LongRange {\n if (to <= Long.MIN\_VALUE) return LongRange.EMPTY\n return this.toLong() .. (to - 1).toLong()\n}\n\n/\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Short.until(to: Long): LongRange {\n if (to <= Long.MIN\_VALUE) return LongRange.EMPTY\n return this.toLong() .. (to - 1).toLong()\n}\n\n/\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Int.until(to: Short): IntRange {\n return this .. (to.toInt() - 1).toInt()\n}\n\n/\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Long.until(to: Short): LongRange {\n return this .. (to.toLong() - 1).toLong()\n}\n\n/\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Byte.until(to: Short): IntRange {\n return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/\*\*\n \* Returns a range from this value up to but excluding the specified [to] value.\n \* \n \* If the [to] value is less than or equal to `this` value, then the returned range is empty.\n \*/\npublic infix fun Short.until(to: Short): IntRange {\n return this.toInt() .. (to.toInt() - 1).toInt()\n}\n\n/\*\*\n \* Ensures that this value is not less than the specified [minimumValue].\n \* \n \* @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n \* \n \* @sample samples.comparisons.ComparableOps.coerceAtLeastComparable\n \*/\npublic fun <T : Comparable<T>> T.coerceAtLeast(minimumValue: T): T {\n return if (this < minimumValue) minimumValue else this\n}\n\n/\*\*\n \* Ensures that this value is not less than the specified [minimumValue].\n \* \n \* @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n \* \n \* @sample samples.comparisons.ComparableOps.coerceAtLeast\n \*/\npublic fun Byte.coerceAtLeast(minimumValue: Byte): Byte {\n return if (this < minimumValue) minimumValue else this\n}\n\n/\*\*\n \* Ensures that this value is not less than the specified [minimumValue].\n \* \n \* @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n \* \n \* @sample samples.comparisons.ComparableOps.coerceAtLeast\n \*/\npublic fun Short.coerceAtLeast(minimumValue: Short): Short {\n return if (this < minimumValue) minimumValue else this\n}\n\n/\*\*\n \* Ensures that this value is not less than the specified [minimumValue].\n \* \n \* @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n \* \n \* @sample samples.comparisons.ComparableOps.coerceAtLeast\n \*/\npublic fun Int.coerceAtLeast(minimumValue: Int): Int {\n return if (this < minimumValue) minimumValue else this\n}\n\n/\*\*\n \* Ensures that this value is not less than the specified [minimumValue].\n \* \n \* @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n \* \n \* @sample samples.comparisons.ComparableOps.coerceAtLeast\n \*/\npublic fun Long.coerceAtLeast(minimumValue: Long): Long {\n return if (this < minimumValue) minimumValue else this\n}\n\n/\*\*\n \* Ensures that this value is not less than the specified [minimumValue].\n \* \n \* @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n \* \n \* @sample samples.comparisons.ComparableOps.coerceAtLeast\n \*/\npublic fun Float.coerceAtLeast(minimumValue: Float): Float {\n return if (this < minimumValue) minimumValue else this\n}\n\n/\*\*\n \* Ensures that this value is not less than the specified [minimumValue].\n \* \n \* @return this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n \* \n \* @sample samples.comparisons.ComparableOps.coerceAtLeast\n \*/\npublic fun Double.coerceAtLeast(minimumValue: Double): Double {\n return if (this < minimumValue) minimumValue else this\n}\n\n/\*\*\n \* Ensures that this value is not greater than the specified [maximumValue].\n \* \n \* @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n \* \n \* @sample samples.comparisons.ComparableOps.coerceAtMostComparable\n \*/\npublic fun <T : Comparable<T>> T.coerceAtMost(maximumValue: T): T {\n return if (this > maximumValue) maximumValue else this\n}\n\n/\*\*\n \* Ensures that this value is not greater than the specified [maximumValue].\n \* \n \* @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n \* \n \* @sample

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samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Byte.coerceAtMost(maximumValue: Byte):
Byte {\n    return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not
greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the
[maximumValue] or the [maximumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Short.coerceAtMost(maximumValue: Short):
Short {\n    return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not
greater than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the
[maximumValue] or the [maximumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Int.coerceAtMost(maximumValue: Int): Int
{\n    return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater
than the specified [maximumValue].\n * \n * @return this value if it's less than or equal to the [maximumValue] or
the [maximumValue] otherwise.\n * \n * @sample samples.comparisons.ComparableOps.coerceAtMost\n
*/\npublic fun Long.coerceAtMost(maximumValue: Long): Long {\n    return if (this > maximumValue)
maximumValue else this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n *
\n * @return this value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n *
\n * @sample samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun
Float.coerceAtMost(maximumValue: Float): Float {\n    return if (this > maximumValue) maximumValue else
this\n}\n\n/**\n * Ensures that this value is not greater than the specified [maximumValue].\n * \n * @return this
value if it's less than or equal to the [maximumValue] or the [maximumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtMost\n */\npublic fun Double.coerceAtMost(maximumValue:
Double): Double {\n    return if (this > maximumValue) maximumValue else this\n}\n\n/**\n * Ensures that this
value lies in the specified range [minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range,
or [minimumValue] if this value is less than [minimumValue], or [maximumValue] if this value is greater than
[maximumValue].\n * \n * @sample samples.comparisons.ComparableOps.coerceInComparable\n */\npublic fun
<T : Comparable<T>> T.coerceIn(minimumValue: T?, maximumValue: T?): T {\n    if (minimumValue !== null
&& maximumValue !== null) {\n        if (minimumValue > maximumValue) throw
IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")\n        if (this < minimumValue) return minimumValue\n        if (this >
maximumValue) return maximumValue\n    }\n    else {\n        if (minimumValue !== null && this <
minimumValue) return minimumValue\n        if (maximumValue !== null && this > maximumValue) return
maximumValue\n    }\n    return this\n}\n\n/**\n * Ensures that this value lies in the specified range
[minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value
is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample
samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Byte.coerceIn(minimumValue: Byte,
maximumValue: Byte): Byte {\n    if (minimumValue > maximumValue) throw
IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")\n    if (this < minimumValue) return minimumValue\n    if (this > maximumValue)
return maximumValue\n    return this\n}\n\n/**\n * Ensures that this value lies in the specified range
[minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value
is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample
samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Short.coerceIn(minimumValue: Short,
maximumValue: Short): Short {\n    if (minimumValue > maximumValue) throw
IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")\n    if (this < minimumValue) return minimumValue\n    if (this > maximumValue)
return maximumValue\n    return this\n}\n\n/**\n * Ensures that this value lies in the specified range
[minimumValue]..[maximumValue].\n * \n * @return this value if it's in the range, or [minimumValue] if this value
is less than [minimumValue], or [maximumValue] if this value is greater than [maximumValue].\n * \n * @sample
samples.comparisons.ComparableOps.coerceIn\n */\npublic fun Int.coerceIn(minimumValue: Int, maximumValue:

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samples.comparisons.ComparableOps.coerceIn\n *^\npublic fun Long.coerceIn(range: ClosedRange<Long>): Long
{\n if (range is ClosedFloatingPointRange) {\n return this.coerceIn<Long>(range)\n }\n if
(range.isEmpty()) throw IllegalArgumentException("Cannot coerce value to an empty range: $range.")\n return
when {\n this < range.start -> range.start\n this > range.endInclusive -> range.endInclusive\n else ->
this\n }\n}\n\n", "*/\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n
* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt
file.\n *^\n\n// Auto-generated file. DO NOT EDIT!\n\npackage kotlin\n\nimport
kotlin.experimental.*\n\n@Suppress("NON_PUBLIC_PRIMARY_CONSTRUCTOR_OF_INLINE_CLASS")\n
\n@SinceKotlin("1.3")\n\n@ExperimentalUnsignedTypes\n\npublic inline class UByte @PublishedApi internal
constructor(@PublishedApi internal val data: Byte) : Comparable<UByte> {\n\n companion object {\n\n
/**\n * A constant holding the minimum value an instance of UByte can have.\n *^\n public const
val MIN_VALUE: UByte = UByte(0)\n\n /**\n * A constant holding the maximum value an instance
of UByte can have.\n *^\n public const val MAX_VALUE: UByte = UByte(-1)\n\n /**\n
* The number of bytes used to represent an instance of UByte in a binary form.\n *^\n public const val
SIZE_BYTES: Int = 1\n\n /**\n * The number of bits used to represent an instance of UByte in a
binary form.\n *^\n public const val SIZE_BITS: Int = 8\n\n }\n\n /**\n * Compares this
value with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a
negative number if it's less than other,\n * or a positive number if it's greater than other.\n *^\n
@kotlin.internal.InlineOnly\n @Suppress("OVERRIDE_BY_INLINE")\n public override inline operator
fun compareTo(other: UByte): Int = this.toInt().compareTo(other.toInt())\n\n /**\n * Compares this value
with the specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative
number if it's less than other,\n * or a positive number if it's greater than other.\n *^\n
@kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: UShort): Int =
this.toInt().compareTo(other.toInt())\n\n /**\n * Compares this value with the specified value for order.\n
* Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\n
* or a positive number if it's greater than other.\n *^\n @kotlin.internal.InlineOnly\n public inline operator fun
compareTo(other: UInt): Int = this.toUInt().compareTo(other)\n\n /**\n * Compares this value with the
specified value for order.\n * Returns zero if this value is equal to the specified other value, a negative number if
it's less than other,\n * or a positive number if it's greater than other.\n *^\n
@kotlin.internal.InlineOnly\n public inline operator fun compareTo(other: ULong): Int =
this.toULong().compareTo(other)\n\n /** Adds the other value to this value. *^\n
@kotlin.internal.InlineOnly\n public inline operator fun plus(other: UByte): UInt =
this.toUInt().plus(other.toUInt())\n\n /** Adds the other value to this value. *^\n @kotlin.internal.InlineOnly\n
public inline operator fun plus(other: UShort): UInt = this.toUInt().plus(other.toUInt())\n\n /** Adds the other
value to this value. *^\n @kotlin.internal.InlineOnly\n public inline operator fun plus(other: UInt): UInt =
this.toUInt().plus(other)\n\n /** Adds the other value to this value. *^\n @kotlin.internal.InlineOnly\n public
inline operator fun plus(other: ULong): ULong = this.toULong().plus(other)\n\n /** Subtracts the other value
from this value. *^\n @kotlin.internal.InlineOnly\n public inline operator fun minus(other: UByte): UInt =
this.toUInt().minus(other.toUInt())\n\n /** Subtracts the other value from this value. *^\n
@kotlin.internal.InlineOnly\n public inline operator fun minus(other: UShort): UInt =
this.toUInt().minus(other.toUInt())\n\n /** Subtracts the other value from this value. *^\n
@kotlin.internal.InlineOnly\n public inline operator fun minus(other: UInt): UInt = this.toUInt().minus(other)\n\n
/** Subtracts the other value from this value. *^\n @kotlin.internal.InlineOnly\n public inline operator fun
minus(other: ULong): ULong = this.toULong().minus(other)\n\n /** Multiplies this value by the other value.
*^\n @kotlin.internal.InlineOnly\n public inline operator fun times(other: UByte): UInt =
this.toUInt().times(other.toUInt())\n\n /** Multiplies this value by the other value. *^\n
@kotlin.internal.InlineOnly\n public inline operator fun times(other: UShort): UInt =
this.toUInt().times(other.toUInt())\n\n /** Multiplies this value by the other value. *^\n

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@kotlin.internal.InlineOnly\r\n public inline operator fun times(other: UInt): UInt = this.toUInt().times(other)\r\n
/** Multiplies this value by the other value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun
times(other: ULong): ULong = this.toULong().times(other)\r\n\r\n /** Divides this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun div(other: UByte): UInt =
this.toUInt().div(other.toUInt())\r\n /** Divides this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun div(other: UShort): UInt =
this.toUInt().div(other.toUInt())\r\n /** Divides this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun div(other: UInt): UInt = this.toUInt().div(other)\r\n /**
Divides this value by the other value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun div(other:
ULong): ULong = this.toULong().div(other)\r\n\r\n /** Calculates the remainder of dividing this value by the
other value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun rem(other: UByte): UInt =
this.toUInt().rem(other.toUInt())\r\n /** Calculates the remainder of dividing this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun rem(other: UShort): UInt =
this.toUInt().rem(other.toUInt())\r\n /** Calculates the remainder of dividing this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun rem(other: UInt): UInt = this.toUInt().rem(other)\r\n
/** Calculates the remainder of dividing this value by the other value. */\r\n @kotlin.internal.InlineOnly\r\n
public inline operator fun rem(other: ULong): ULong = this.toULong().rem(other)\r\n\r\n /** Increments this
value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun inc(): UByte = UByte(data.inc())\r\n /**
Decrements this value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun dec(): UByte =
UByte(data.dec())\r\n\r\n /** Creates a range from this value to the specified [other] value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun rangeTo(other: UByte): UIntRange =
UIntRange(this.toUInt(), other.toUInt())\r\n\r\n /** Performs a bitwise AND operation between the two values.
*/\r\n @kotlin.internal.InlineOnly\r\n public inline infix fun and(other: UByte): UByte = UByte(this.data and
other.data)\r\n /** Performs a bitwise OR operation between the two values. */\r\n
@kotlin.internal.InlineOnly\r\n public inline infix fun or(other: UByte): UByte = UByte(this.data or other.data)\r\n
/** Performs a bitwise XOR operation between the two values. */\r\n @kotlin.internal.InlineOnly\r\n public
inline infix fun xor(other: UByte): UByte = UByte(this.data xor other.data)\r\n /** Inverts the bits in this value.
*/\r\n @kotlin.internal.InlineOnly\r\n public inline fun inv(): UByte = UByte(data.inv())\r\n\r\n /**\r\n *
Converts this [UByte] value to [Byte].\r\n * If this value is less than or equals to [Byte.MAX_VALUE],
the resulting `Byte` value represents\r\n * the same numerical value as this `UByte`. Otherwise the result is
negative.\r\n * The resulting `Byte` value has the same binary representation as this `UByte` value.\r\n
*/\r\n @kotlin.internal.InlineOnly\r\n public inline fun toByte(): Byte = data\r\n /**\r\n * Converts this
[UByte] value to [Short].\r\n * The resulting `Short` value represents the same numerical value as this
`UByte`.\r\n * The least significant 8 bits of the resulting `Short` value are the same as the bits of this
`UByte` value,\r\n * whereas the most significant 8 bits are filled with zeros.\r\n */\r\n
@kotlin.internal.InlineOnly\r\n public inline fun toShort(): Short = data.toShort() and 0xFF\r\n /**\r\n *
Converts this [UByte] value to [Int].\r\n * The resulting `Int` value represents the same numerical value as
this `UByte`.\r\n * The least significant 8 bits of the resulting `Int` value are the same as the bits of this
`UByte` value,\r\n * whereas the most significant 24 bits are filled with zeros.\r\n */\r\n
@kotlin.internal.InlineOnly\r\n public inline fun toInt(): Int = data.toInt() and 0xFF\r\n /**\r\n * Converts this
[UByte] value to [Long].\r\n * The resulting `Long` value represents the same numerical value as this
`UByte`.\r\n * The least significant 8 bits of the resulting `Long` value are the same as the bits of this
`UByte` value,\r\n * whereas the most significant 56 bits are filled with zeros.\r\n */\r\n
@kotlin.internal.InlineOnly\r\n public inline fun toLong(): Long = data.toLong() and 0xFF\r\n\r\n /** Returns
this value. */\r\n @kotlin.internal.InlineOnly\r\n public inline fun toUByte(): UByte = this\r\n /**\r\n *
Converts this [UByte] value to [UShort].\r\n * The resulting `UShort` value represents the same numerical
value as this `UByte`.\r\n * The least significant 8 bits of the resulting `UShort` value are the same as the
bits of this `UByte` value,\r\n * whereas the most significant 8 bits are filled with zeros.\r\n */\r\n

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@kotlin.internal.InlineOnly\r\n    public inline fun toUShort(): UShort = UShort(data.toShort() and 0xFF)\r\n
/**\r\n    * Converts this [UByte] value to [UInt].\r\n    * The resulting `UInt` value represents the same
numerical value as this `UByte`. \r\n    * The least significant 8 bits of the resulting `UInt` value are the same
as the bits of this `UByte` value, \r\n    * whereas the most significant 24 bits are filled with zeros. \r\n    */\r\n
@kotlin.internal.InlineOnly\r\n    public inline fun toUInt(): UInt = UInt(data.toInt() and 0xFF)\r\n    /**\r\n    *
Converts this [UByte] value to [ULong]. \r\n    * The resulting `ULong` value represents the same numerical
value as this `UByte`. \r\n    * The least significant 8 bits of the resulting `ULong` value are the same as the
bits of this `UByte` value, \r\n    * whereas the most significant 56 bits are filled with zeros. \r\n    */\r\n
@kotlin.internal.InlineOnly\r\n    public inline fun toULong(): ULong = ULong(data.toLong() and 0xFF)\r\n\r\n
/**\r\n    * Converts this [UByte] value to [Float]. \r\n    * The resulting `Float` value represents the same
numerical value as this `UByte`. \r\n    */\r\n
@kotlin.internal.InlineOnly\r\n    public inline fun toFloat(): Float =
this.toInt().toFloat()\r\n    /**\r\n    * Converts this [UByte] value to [Double]. \r\n    * The resulting
`Double` value represents the same numerical value as this `UByte`. \r\n    */\r\n
@kotlin.internal.InlineOnly\r\n    public inline fun toDouble(): Double = this.toInt().toDouble()\r\n\r\n
public override fun toString(): String =
toInt().toString()\r\n\r\n}
\r\n\r\n/**\r\n    * Converts this [Byte] value to [UByte]. \r\n    * If this value is positive,
the resulting `UByte` value represents the same numerical value as this `Byte`. \r\n    * The resulting `UByte`
value has the same binary representation as this `Byte` value. \r\n
\r\n    */\r\n
@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
Byte.toUByte(): UByte = UByte(this)\r\n\r\n/**\r\n    * Converts this [Short] value to [UByte]. \r\n    * If this value is
positive and less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\r\n    * the same
numerical value as this `Short`. \r\n    * The resulting `UByte` value is represented by the least significant 8 bits
of this `Short` value. \r\n
\r\n    */\r\n
@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
Short.toUByte(): UByte = UByte(this.toByte())\r\n\r\n/**\r\n    * Converts this [Int] value to [UByte]. \r\n    * If this
value is positive and less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\r\n    * the
same numerical value as this `Int`. \r\n    * The resulting `UByte` value is represented by the least significant 8
bits of this `Int` value. \r\n
\r\n    */\r\n
@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
Int.toUByte(): UByte = UByte(this.toByte())\r\n\r\n/**\r\n    * Converts this [Long] value to [UByte]. \r\n    * If this
value is positive and less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents\r\n    * the
same numerical value as this `Long`. \r\n    * The resulting `UByte` value is represented by the least significant 8
bits of this `Long` value. \r\n
\r\n    */\r\n
@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
Long.toUByte(): UByte = UByte(this.toByte())\r\n", "/*\r\n    * Copyright 2010-2019 JetBrains s.r.o. and Kotlin
Programming Language contributors. \r\n    * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file. \r\n    */\r\n\r\n// Auto-generated file. DO NOT EDIT!\r\n\r\npackage
kotlin\r\n\r\nimport
kotlin.experimental.*\r\n\r\n@Suppress("NON_PUBLIC_PRIMARY_CONSTRUCTOR_OF_INLINE_CLASS")\r\n
@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\npublic inline class UInt @PublishedApi internal
constructor(@PublishedApi internal val data: Int) : Comparable<UInt> {\r\n\r\n    companion object {\r\n
\r\n        /**\r\n            * A constant holding the minimum value an instance of UInt can have. \r\n            */\r\n
        public const
val MIN_VALUE: UInt = UInt(0)\r\n\r\n        /**\r\n            * A constant holding the maximum value an instance of
UInt can have. \r\n            */\r\n
        public const val MAX_VALUE: UInt = UInt(-1)\r\n\r\n        /**\r\n            * The
number of bytes used to represent an instance of UInt in a binary form. \r\n            */\r\n
        public const val
SIZE_BYTES: Int = 4\r\n\r\n        /**\r\n            * The number of bits used to represent an instance of UInt in a binary
form. \r\n            */\r\n
        public const val SIZE_BITS: Int = 32\r\n    }\r\n\r\n    /**\r\n    * Compares this value with
the specified value for order. \r\n    * Returns zero if this value is equal to the specified other value, a negative
number if it's less than other, \r\n    * or a positive number if it's greater than other. \r\n    */\r\n
\r\n    }

```

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@kotlin.internal.InlineOnly\r\n public inline operator fun compareTo(other: UByte): Int =
this.compareTo(other.toInt())\r\n\r\n /**\r\n * Compares this value with the specified value for order.\r\n *
Returns zero if this value is equal to the specified other value, a negative number if it's less than other,\r\n * or a
positive number if it's greater than other.\r\n */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun
compareTo(other: UShort): Int = this.compareTo(other.toInt())\r\n\r\n /**\r\n * Compares this value with the
specified value for order.\r\n * Returns zero if this value is equal to the specified other value, a negative number if
it's less than other,\r\n * or a positive number if it's greater than other.\r\n */\r\n
@kotlin.internal.InlineOnly\r\n @Suppress("\u0027OVERRIDE_BY_INLINE\u0027")\r\n public override inline operator
fun compareTo(other: UInt): Int = uintCompare(this.data, other.data)\r\n\r\n /**\r\n * Compares this value with
the specified value for order.\r\n * Returns zero if this value is equal to the specified other value, a negative
number if it's less than other,\r\n * or a positive number if it's greater than other.\r\n */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun compareTo(other: ULong): Int =
this.toULong().compareTo(other)\r\n\r\n /** Adds the other value to this value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun plus(other: UByte): UInt = this.plus(other.toInt())\r\n
/** Adds the other value to this value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun
plus(other: UShort): UInt = this.plus(other.toInt())\r\n /** Adds the other value to this value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun plus(other: UInt): UInt =
UInt(this.data.plus(other.data))\r\n /** Adds the other value to this value. */\r\n @kotlin.internal.InlineOnly\r\n
public inline operator fun plus(other: ULong): ULong = this.toULong().plus(other)\r\n\r\n /** Subtracts the other
value from this value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun minus(other: UByte): UInt
= this.minus(other.toInt())\r\n /** Subtracts the other value from this value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun minus(other: UShort): UInt =
this.minus(other.toInt())\r\n /** Subtracts the other value from this value. */\r\n @kotlin.internal.InlineOnly\r\n
public inline operator fun minus(other: UInt): UInt = UInt(this.data.minus(other.data))\r\n /** Subtracts the other
value from this value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun minus(other: ULong):
ULong = this.toULong().minus(other)\r\n\r\n /** Multiplies this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun times(other: UByte): UInt =
this.times(other.toInt())\r\n /** Multiplies this value by the other value. */\r\n @kotlin.internal.InlineOnly\r\n
public inline operator fun times(other: UShort): UInt = this.times(other.toInt())\r\n /** Multiplies this value by
the other value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun times(other: UInt): UInt =
UInt(this.data.times(other.data))\r\n /** Multiplies this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun times(other: ULong): ULong =
this.toULong().times(other)\r\n\r\n /** Divides this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun div(other: UByte): UInt = this.div(other.toInt())\r\n
/** Divides this value by the other value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun
div(other: UShort): UInt = this.div(other.toInt())\r\n /** Divides this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun div(other: UInt): UInt = uintDivide(this, other)\r\n /**
Divides this value by the other value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun div(other:
ULong): ULong = this.toULong().div(other)\r\n\r\n /** Calculates the remainder of dividing this value by the
other value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun rem(other: UByte): UInt =
this.rem(other.toInt())\r\n /** Calculates the remainder of dividing this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun rem(other: UShort): UInt = this.rem(other.toInt())\r\n
/** Calculates the remainder of dividing this value by the other value. */\r\n @kotlin.internal.InlineOnly\r\n
public inline operator fun rem(other: UInt): UInt = uintRemainder(this, other)\r\n /** Calculates the remainder of
dividing this value by the other value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun rem(other:
ULong): ULong = this.toULong().rem(other)\r\n\r\n /** Increments this value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun inc(): UInt = UInt(data.inc())\r\n /** Decrements this
value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun dec(): UInt = UInt(data.dec())\r\n\r\n

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/** Creates a range from this value to the specified [other] value. */
@kotlin.internal.InlineOnly public
inline operator fun rangeTo(other: UInt): UIntRange = UIntRange(this, other)
/** Shifts this value left by
the [bitCount] number of bits. */
@kotlin.internal.InlineOnly public inline infix fun shl(bitCount: Int):
UInt = UInt(data shl bitCount)
/** Shifts this value right by the [bitCount] number of bits, filling the leftmost
bits with zeros. */
@kotlin.internal.InlineOnly public inline infix fun shr(bitCount: Int): UInt = UInt(data
ushr bitCount)
/** Performs a bitwise AND operation between the two values. */
@kotlin.internal.InlineOnly public inline infix fun and(other: UInt): UInt = UInt(this.data and other.data)
/** Performs a bitwise OR operation between the two values. */
@kotlin.internal.InlineOnly public inline
infix fun or(other: UInt): UInt = UInt(this.data or other.data)
/** Performs a bitwise XOR operation between
the two values. */
@kotlin.internal.InlineOnly public inline infix fun xor(other: UInt): UInt =
UInt(this.data xor other.data)
/** Inverts the bits in this value. */
@kotlin.internal.InlineOnly public
inline fun inv(): UInt = UInt(data.inv())
/** Converts this [UInt] value to [Byte].
If
this value is less than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents
the same
numerical value as this `UInt`.
The resulting `Byte` value is represented by the least significant 8 bits
of this `UInt` value.
Note that the resulting `Byte` value may be negative. */
@kotlin.internal.InlineOnly public inline fun toByte(): Byte = data.toByte()
/** Converts this
[UInt] value to [Short].
If this value is less than or equals to [Short.MAX_VALUE], the resulting
`Short` value represents
the same numerical value as this `UInt`.
The resulting `Short` value
is represented by the least significant 16 bits of this `UInt` value.
Note that the resulting `Short` value may
be negative. */
@kotlin.internal.InlineOnly public inline fun toShort(): Short = data.toShort()
/** Converts this [UInt] value to [Int].
If this value is less than or equals to
[Int.MAX_VALUE], the resulting `Int` value represents
the same numerical value as this `UInt`.
Otherwise
the result is negative.
The resulting `Int` value has the same binary representation as this `UInt`
value. */
@kotlin.internal.InlineOnly public inline fun toInt(): Int = data
/** Converts
this [UInt] value to [Long].
The resulting `Long` value represents the same numerical value as this
`UInt`.
The least significant 32 bits of the resulting `Long` value are the same as the bits of this
`UInt` value,
whereas the most significant 32 bits are filled with zeros. */
@kotlin.internal.InlineOnly public inline fun toLong(): Long = data.toLong() and 0xFFFF_FFFF
/** Converts this [UInt] value to [UByte].
If this value is less than or equals to
[UByte.MAX_VALUE], the resulting `UByte` value represents
the same numerical value as this `UInt`.
The resulting `UByte` value is represented by the least significant 8 bits of this `UInt` value. */
@kotlin.internal.InlineOnly public inline fun toUByte(): UByte = data.toUByte()
/** Converts
this [UInt] value to [UShort].
If this value is less than or equals to [UShort.MAX_VALUE], the
resulting `UShort` value represents
the same numerical value as this `UInt`.
The resulting
`UShort` value is represented by the least significant 16 bits of this `UInt` value. */
@kotlin.internal.InlineOnly public inline fun toUShort(): UShort = data.toUShort()
/** Returns this
value. */
@kotlin.internal.InlineOnly public inline fun toUInt(): UInt = this
/** Converts this
[UInt] value to [ULong].
The resulting `ULong` value represents the same numerical value as this
`UInt`.
The least significant 32 bits of the resulting `ULong` value are the same as the bits of this
`UInt` value,
whereas the most significant 32 bits are filled with zeros. */
@kotlin.internal.InlineOnly public inline fun toULong(): ULong = ULong(data.toLong() and
0xFFFF_FFFF)
/** Converts this [UInt] value to [Float].
The resulting value is the
closest `Float` to this `UInt` value.
In case when this `UInt` value is exactly between two `Float`s,
the one with zero at least significant bit of mantissa is selected. */
@kotlin.internal.InlineOnly public
inline fun toFloat(): Float = this.toDouble().toFloat()
/** Converts this [UInt] value to
[Double].
The resulting `Double` value represents the same numerical value as this `UInt`. */
@kotlin.internal.InlineOnly public inline fun toDouble(): Double = UInt.toDouble(data)
public
override fun toString(): String = toLong().toString()
}
/** Converts this [Byte] value to [UInt]. */

```

```

* If this value is positive, the resulting `UInt` value represents the same numerical value as this `Byte`.
* The least significant 8 bits of the resulting `UInt` value are the same as the bits of this `Byte` value, whereas
the most significant 24 bits are filled with the sign bit of this value.
^@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly public inline fun
Byte.toUInt(): UInt = UInt(this.toInt())
* Converts this [Short] value to [UInt].
* If this value is
positive, the resulting `UInt` value represents the same numerical value as this `Short`.
* The least
significant 16 bits of the resulting `UInt` value are the same as the bits of this `Short` value, whereas the most
significant 16 bits are filled with the sign bit of this value.
^@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly public inline fun
Short.toUInt(): UInt = UInt(this.toInt())
* Converts this [Int] value to [UInt].
* If this value is
positive, the resulting `UInt` value represents the same numerical value as this `Int`.
* The resulting `UInt`
value has the same binary representation as this `Int` value.
^@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly public inline fun
Int.toUInt(): UInt = UInt(this)
* Converts this [Long] value to [UInt].
* If this value is positive
and less than or equals to [UInt.MAX_VALUE], the resulting `UInt` value represents
* the same numerical
value as this `Long`.
* The resulting `UInt` value is represented by the least significant 32 bits of this
`Long` value.
^@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly public inline fun
Long.toUInt(): UInt = UInt(this.toInt())
* Converts this [Float] value to [UInt].
* The
fractional part, if any, is rounded down.
* Returns zero if this `Float` value is negative or `NaN`,
[UInt.MAX_VALUE] if it's bigger than `UInt.MAX_VALUE`.
^@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly public inline fun
Float.toUInt(): UInt = doubleToUInt(this.toDouble())
* Converts this [Double] value to [UInt].
*
The fractional part, if any, is rounded down.
* Returns zero if this `Double` value is negative or `NaN`,
[UInt.MAX_VALUE] if it's bigger than `UInt.MAX_VALUE`.
^@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly public inline fun
Double.toUInt(): UInt = doubleToUInt(this)
", "/*
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Programming Language contributors.
* Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.
^
^
// Auto-generated file. DO NOT EDIT!
package
kotlin
import
kotlin.experimental.
@Suppress("NON_PUBLIC_PRIMARY_CONSTRUCTOR_OF_INLINE_CLASS")
^@SinceKotlin("1.3")@ExperimentalUnsignedTypes public inline class UShort @PublishedApi internal
constructor(@PublishedApi internal val data: Short) : Comparable<UShort> {
    companion object {
        /*
        * A constant holding the minimum value an instance of UShort can have.
        ^ public
        const val MIN_VALUE: UShort = UShort(0)
        /*
        * A constant holding the maximum value an
instance of UShort can have.
        ^ public const val MAX_VALUE: UShort = UShort(-1)
        /*
        * The number of bytes used to represent an instance of UShort in a binary form.
        ^
        public const val SIZE_BYTES: Int = 2
        /*
        * The number of bits used to represent an instance of
UShort in a binary form.
        ^ public const val SIZE_BITS: Int = 16
    }
}
/*
* Compares this value with the specified value for order.
* Returns zero if this value is equal to the specified
other value, a negative number if it's less than other,
* or a positive number if it's greater than other.
^
^ @kotlin.internal.InlineOnly public inline operator fun compareTo(other: UByte): Int =
this.toInt().compareTo(other.toInt())
/*
* Compares this value with the specified value for order.
* Returns zero if this value is equal to the specified other value, a negative number if it's less than other,
* or
a positive number if it's greater than other.
^
^ @kotlin.internal.InlineOnly
@Suppress("OVERRIDE_BY_INLINE") public override inline operator fun compareTo(other: UShort): Int
= this.toInt().compareTo(other.toInt())
/*
* Compares this value with the specified value for
order.
* Returns zero if this value is equal to the specified other value, a negative number if it's less than

```

```

other, \r\n * or a positive number if it's greater than other. \r\n */\r\n @kotlin.internal.InlineOnly\r\n public
inline operator fun compareTo(other: UInt): Int = this.toUInt().compareTo(other)\r\n\r\n /**\r\n * Compares this
value with the specified value for order. \r\n * Returns zero if this value is equal to the specified other value, a
negative number if it's less than other, \r\n * or a positive number if it's greater than other. \r\n */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun compareTo(other: ULong): Int =
this.toULong().compareTo(other)\r\n\r\n /** Adds the other value to this value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun plus(other: UByte): UInt =
this.toUInt().plus(other.toUInt())\r\n /** Adds the other value to this value. */\r\n @kotlin.internal.InlineOnly\r\n
public inline operator fun plus(other: UShort): UInt = this.toUInt().plus(other.toUInt())\r\n /** Adds the other
value to this value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun plus(other: UInt): UInt =
this.toUInt().plus(other)\r\n /** Adds the other value to this value. */\r\n @kotlin.internal.InlineOnly\r\n public
inline operator fun plus(other: ULong): ULong = this.toULong().plus(other)\r\n\r\n /** Subtracts the other value
from this value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun minus(other: UByte): UInt =
this.toUInt().minus(other.toUInt())\r\n /** Subtracts the other value from this value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun minus(other: UShort): UInt =
this.toUInt().minus(other.toUInt())\r\n /** Subtracts the other value from this value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun minus(other: UInt): UInt = this.toUInt().minus(other)\r\n
/** Subtracts the other value from this value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun
minus(other: ULong): ULong = this.toULong().minus(other)\r\n\r\n /** Multiplies this value by the other value.
*/\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun times(other: UByte): UInt =
this.toUInt().times(other.toUInt())\r\n /** Multiplies this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun times(other: UShort): UInt =
this.toUInt().times(other.toUInt())\r\n /** Multiplies this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun times(other: UInt): UInt = this.toUInt().times(other)\r\n
/** Multiplies this value by the other value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun
times(other: ULong): ULong = this.toULong().times(other)\r\n\r\n /** Divides this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun div(other: UByte): UInt =
this.toUInt().div(other.toUInt())\r\n /** Divides this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun div(other: UShort): UInt =
this.toUInt().div(other.toUInt())\r\n /** Divides this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun div(other: UInt): UInt = this.toUInt().div(other)\r\n /**
Divides this value by the other value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun div(other:
ULong): ULong = this.toULong().div(other)\r\n\r\n /** Calculates the remainder of dividing this value by the
other value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun rem(other: UByte): UInt =
this.toUInt().rem(other.toUInt())\r\n /** Calculates the remainder of dividing this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun rem(other: UShort): UInt =
this.toUInt().rem(other.toUInt())\r\n /** Calculates the remainder of dividing this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun rem(other: UInt): UInt = this.toUInt().rem(other)\r\n
/** Calculates the remainder of dividing this value by the other value. */\r\n @kotlin.internal.InlineOnly\r\n
public inline operator fun rem(other: ULong): ULong = this.toULong().rem(other)\r\n\r\n /** Increments this
value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun inc(): UShort = UShort(data.inc())\r\n
/** Decrements this value. */\r\n @kotlin.internal.InlineOnly\r\n public inline operator fun dec(): UShort =
UShort(data.dec())\r\n\r\n /** Creates a range from this value to the specified [other] value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun rangeTo(other: UShort): UIntRange =
UIntRange(this.toUInt(), other.toUInt())\r\n\r\n /** Performs a bitwise AND operation between the two values.
*/\r\n @kotlin.internal.InlineOnly\r\n public inline infix fun and(other: UShort): UShort = UShort(this.data and
other.data)\r\n /** Performs a bitwise OR operation between the two values. */\r\n
@kotlin.internal.InlineOnly\r\n public inline infix fun or(other: UShort): UShort = UShort(this.data or

```



numerical value as this `Int`.  
The resulting `UShort` value is represented by the least significant 16 bits of this `Int` value.

```
fun Int.toUShort(): UShort = UShort(this.toShort())  
/* Converts this [Long] value to [UShort].  
If this value is positive and less than or equals to [UShort.MAX_VALUE], the resulting `UShort` value represents the same numerical value as this `Long`.  
The resulting `UShort` value is represented by the least significant 16 bits of this `Long` value.
```

```
fun Long.toUShort(): UShort = UShort(this.toShort())  
/* Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.  
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.  
Auto-generated file. DO NOT EDIT!  
package kotlin.ranges  
/** A range of values of type `Char`.  
public class CharRange(start: Char, endInclusive: Char) : CharProgression(start, endInclusive, 1), ClosedRange<Char> {  
    override val start: Char get() = first  
    override val endInclusive: Char get() = last  
    override fun contains(value: Char): Boolean = first <= value && value <= last  
    override fun isEmpty(): Boolean = first > last  
    override fun equals(other: Any?): Boolean = other is CharRange && (isEmpty() && other.isEmpty() || first == other.first && last == other.last)  
    override fun hashCode(): Int = if (isEmpty()) -1 else (31 * first.toInt() + last.toInt())  
    override fun toString(): String = "$first..$last"  
    companion object {  
        /** An empty range of values of type Char.  
        public val EMPTY: CharRange = CharRange(1.toChar(), 0.toChar())  
    }  
}  
/** A range of values of type `Int`.  
public class IntRange(start: Int, endInclusive: Int) : IntProgression(start, endInclusive, 1), ClosedRange<Int> {  
    override val start: Int get() = first  
    override val endInclusive: Int get() = last  
    override fun contains(value: Int): Boolean = first <= value && value <= last  
    override fun isEmpty(): Boolean = first > last  
    override fun equals(other: Any?): Boolean = other is IntRange && (isEmpty() && other.isEmpty() || first == other.first && last == other.last)  
    override fun hashCode(): Int = if (isEmpty()) -1 else (31 * first + last).toInt()  
    override fun toString(): String = "$first..$last"  
    companion object {  
        /** An empty range of values of type Int.  
        public val EMPTY: IntRange = IntRange(1, 0)  
    }  
}  
/** A range of values of type `Long`.  
public class LongRange(start: Long, endInclusive: Long) : LongProgression(start, endInclusive, 1), ClosedRange<Long> {  
    override val start: Long get() = first  
    override val endInclusive: Long get() = last  
    override fun contains(value: Long): Boolean = first <= value && value <= last  
    override fun isEmpty(): Boolean = first > last  
    override fun equals(other: Any?): Boolean = other is LongRange && (isEmpty() && other.isEmpty() || first == other.first && last == other.last)  
    override fun hashCode(): Int = if (isEmpty()) -1 else (31 * (first xor (first ushr 32)) + (last xor (last ushr 32))).toInt()  
    override fun toString(): String = "$first..$last"  
    companion object {  
        /** An empty range of values of type Long.  
        public val EMPTY: LongRange = LongRange(1, 0)  
    }  
}  
/* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.  
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.  
@file:kotlin.jvm.JvmMultifileClass  
@file:kotlin.jvm.JvmName("CollectionsKt")  
package kotlin.collections  
nimport kotlin.contracts.  
internal object EmptyIterator : ListIterator<Nothing> {  
    override fun hasNext(): Boolean = false  
    override fun hasPrevious(): Boolean = false  
    override fun nextIndex(): Int = 0  
    override fun previousIndex(): Int = -1  
    override fun next(): Nothing = throw NoSuchElementException()  
    override fun previous(): Nothing = throw NoSuchElementException()  
}  
internal object EmptyList : List<Nothing>, Serializable, RandomAccess {  
    private const val serialVersionUID: Long = -7390468764508069838L  
    override fun equals(other: Any?): Boolean = other is List<*> && other.isEmpty()  
    override fun hashCode(): Int = 1  
    override fun toString(): String = "[]"  
    override val size: Int get() = 0  
    override fun isEmpty(): Boolean = true  
    override fun contains(element: Nothing): Boolean = false  
    override fun containsAll(elements: Collection<Nothing>): Boolean = elements.isEmpty()  
    override fun get(index: Int): Nothing = throw
```

```

IndexOutOfBoundsException("Empty list doesn't contain element at index $index.\r\n") override fun
indexOf(element: Nothing): Int = -1\r\n override fun lastIndexOf(element: Nothing): Int = -1\r\n\r\n override fun
iterator(): Iterator<Nothing> = EmptyIterator\r\n override fun listIterator(): ListIterator<Nothing> =
EmptyIterator\r\n override fun listIterator(index: Int): ListIterator<Nothing> {\r\n if (index != 0) throw
IndexOutOfBoundsException("Index: $index\r\n")\r\n return EmptyIterator\r\n }\r\n\r\n override fun
subList(fromIndex: Int, toIndex: Int): List<Nothing> {\r\n if (fromIndex == 0 && toIndex == 0) return this\r\n
throw IndexOutOfBoundsException("fromIndex: $fromIndex, toIndex: $toIndex\r\n")\r\n }\r\n\r\n private fun
readResolve(): Any = EmptyList\r\n}\r\n\r\ninternal fun <T> Array<out T>.asCollection(): Collection<T> =
ArrayAsCollection(this, isVarargs = false)\r\n\r\nprivate class ArrayAsCollection<T>(val values: Array<out T>, val
isVarargs: Boolean) : Collection<T> {\r\n override val size: Int get() = values.size\r\n override fun isEmpty():
Boolean = values.isEmpty()\r\n override fun contains(element: T): Boolean = values.contains(element)\r\n
override fun containsAll(elements: Collection<T>): Boolean = elements.all { contains(it) }\r\n override fun
iterator(): Iterator<T> = values.iterator()\r\n // override hidden toArray implementation to prevent copying of
values array\r\n public fun toArray(): Array<out Any?> =
values.copyToArrayOfAny(isVarargs)\r\n}\r\n\r\n/**\r\n * Returns an empty read-only list. The returned list is
serializable (JVM).\r\n * @sample samples.collections.Collections.Lists.emptyReadOnlyList\r\n */\r\npublic fun
<T> emptyList(): List<T> = EmptyList\r\n\r\n/**\r\n * Returns a new read-only list of given elements. The returned
list is serializable (JVM).\r\n * @sample samples.collections.Collections.Lists.readOnlyList\r\n */\r\npublic fun <T>
listOf(vararg elements: T): List<T> = if (elements.size > 0) elements.asList() else emptyList()\r\n\r\n/**\r\n *
Returns an empty read-only list. The returned list is serializable (JVM).\r\n * @sample
samples.collections.Collections.Lists.emptyReadOnlyList\r\n */\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
<T> listOf(): List<T> = emptyList()\r\n\r\n/**\r\n * Returns an empty new [MutableList].\r\n * @sample
samples.collections.Collections.Lists.emptyMutableList\r\n */\r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T> mutableListOf():
MutableList<T> = ArrayList()\r\n\r\n/**\r\n * Returns an empty new [ArrayList].\r\n * @sample
samples.collections.Collections.Lists.emptyArrayList\r\n */\r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T> arrayListOf(): ArrayList<T> =
ArrayList()\r\n\r\n/**\r\n * Returns a new [MutableList] with the given elements.\r\n * @sample
samples.collections.Collections.Lists.mutableList\r\n */\r\npublic fun <T> mutableListOf(vararg elements: T):
MutableList<T> =\r\n if (elements.size == 0) ArrayList() else ArrayList(ArrayAsCollection(elements, isVarargs =
true))\r\n\r\n/**\r\n * Returns a new [ArrayList] with the given elements.\r\n * @sample
samples.collections.Collections.Lists.arrayList\r\n */\r\npublic fun <T> arrayListOf(vararg elements: T):
ArrayList<T> =\r\n if (elements.size == 0) ArrayList() else ArrayList(ArrayAsCollection(elements, isVarargs =
true))\r\n\r\n/**\r\n * Returns a new read-only list either of single given element, if it is not null, or empty list if the
element is null. The returned list is serializable (JVM).\r\n * @sample
samples.collections.Collections.Lists.listOfNotNull\r\n */\r\npublic fun <T : Any> listOfNotNull(element: T?):
List<T> = if (element != null) listOf(element) else emptyList()\r\n\r\n/**\r\n * Returns a new read-only list only of
those given elements, that are not null. The returned list is serializable (JVM).\r\n * @sample
samples.collections.Collections.Lists.listOfNotNull\r\n */\r\npublic fun <T : Any> listOfNotNull(vararg elements:
T?): List<T> = elements.filterNotNull()\r\n\r\n/**\r\n * Creates a new read-only list with the specified [size], where
each element is calculated by calling the specified\r\n * [init] function.\r\n * \r\n * The function [init] is called for
each list element sequentially starting from the first one.\r\n * It should return the value for a list element given its
index.\r\n * \r\n * @sample samples.collections.Collections.Lists.readOnlyListFromInitializer\r\n */\r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T> List(size: Int, init: (index: Int) -
> T): List<T> = MutableList(size, init)\r\n\r\n/**\r\n * Creates a new mutable list with the specified [size], where
each element is calculated by calling the specified\r\n * [init] function.\r\n * \r\n * The function [init] is called for
each list element sequentially starting from the first one.\r\n * It should return the value for a list element given its
index.\r\n * \r\n * @sample samples.collections.Collections.Lists.mutableListFromInitializer\r\n */

```

```

*@\r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T> MutableList(size: Int, init:
(index: Int) -> T): MutableList<T> {\r\n    val list = ArrayList<T>(size)\r\n    repeat(size) { index ->
list.add(init(index)) }\r\n    return list\r\n}\r\n\r\n**\r\n * Returns an [IntRange] of the valid indices for this
collection.\r\n * @sample samples.collections.Collections.Collections.indicesOfCollection\r\n *@\r\npublic val
Collection<*>.indices: IntRange\r\n    get() = 0..size - 1\r\n\r\n**\r\n * Returns the index of the last item in the list
or -1 if the list is empty.\r\n *@\r\n * @sample samples.collections.Collections.Lists.lastIndexOfList\r\n *@\r\npublic
val <T> List<T>.lastIndex: Int\r\n    get() = this.size - 1\r\n\r\n**\r\n * Returns `true` if the collection is not
empty.\r\n * @sample samples.collections.Collections.Collections.collectionIsNotEmpty\r\n\r\n*@\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T> Collection<T>.isEmpty(): Boolean =
!isEmpty()\r\n\r\n**\r\n * Returns `true` if this nullable collection is either null or empty.\r\n * @sample
samples.collections.Collections.Collections.collectionOrNull\r\n\r\n*@\r\n@SinceKotlin("1.3")\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T>
Collection<T>?.isEmptyOrNull(): Boolean {\r\n    contract {\r\n        returns(false) implies (this@isEmptyOrNull !=
null)\r\n    }\r\n    return this == null || this.isEmpty()\r\n}\r\n\r\n**\r\n * Returns this Collection if it's not `null`
and the empty list otherwise.\r\n * @sample samples.collections.Collections.Collections.collectionOrNull\r\n\r\n*@\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T> Collection<T>?.orEmpty(): Collection<T> = this ?:
emptyList()\r\n\r\n**\r\n * Returns this List if it's not `null` and the empty list otherwise.\r\n * @sample
samples.collections.Collections.Lists.listOrNull\r\n\r\n*@\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T>
List<T>?.orEmpty(): List<T> = this ?: emptyList()\r\n\r\n**\r\n * Returns this collection if it's not empty\r\n * or
the result of calling [defaultValue] function if the collection is empty.\r\n *@\r\n * @sample
samples.collections.Collections.Collections.collectionIfEmpty\r\n\r\n*@\r\n@SinceKotlin("1.3")\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <C, R> C.ifEmpty(defaultValue: () -
> R): R where C : Collection<*>, C : R =\r\n    if (isEmpty()) defaultValue() else this\r\n\r\n**\r\n * Checks if
all elements in the specified collection are contained in this collection.\r\n *@\r\n * Allows to overcome type-safety
restriction of `containsAll` that requires to pass a collection of type `Collection<E>`.\r\n * @sample
samples.collections.Collections.Collections.collectionContainsAll\r\n\r\n*@\r\n@Suppress("EXTENSION_SHADOWED_BY_MEMBER") // false warning, extension takes precedence in
some cases\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <@kotlin.internal.OnlyInputTypes T>
Collection<T>.containsAll(elements: Collection<T>): Boolean = this.containsAll(elements)\r\n\r\ninternal fun <T>
List<T>.optimizeReadOnlyList() = when (size) {\r\n    0 -> emptyList()\r\n    1 -> listOf(this[0])\r\n    else ->
this\r\n}\r\n\r\n**\r\n * Searches this list or its range for the provided [element] using the binary search
algorithm.\r\n * The list is expected to be sorted into ascending order according to the Comparable natural ordering
of its elements,\r\n * otherwise the result is undefined.\r\n *@\r\n * If the list contains multiple elements equal to the
specified [element], there is no guarantee which one will be found.\r\n *@\r\n * `null` value is considered to be less
than any non-null value.\r\n *@\r\n * @return the index of the element, if it is contained in the list within the specified
range;\r\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\r\n * The insertion point is defined as the
index at which the element should be inserted,\r\n * so that the list (or the specified subrange of list) still remains
sorted.\r\n * @sample samples.collections.Collections.Lists.binarySearchOnComparable\r\n * @sample
samples.collections.Collections.Lists.binarySearchWithBoundaries\r\n\r\n*@\r\npublic fun <T : Comparable<T>>
List<T?>.binarySearch(element: T?, fromIndex: Int = 0, toIndex: Int = size): Int {\r\n    rangeCheck(size,
fromIndex, toIndex)\r\n    var low = fromIndex\r\n    var high = toIndex - 1\r\n    while (low <= high) {\r\n
val mid = (low + high).ushr(1) // safe from overflows\r\n    val midVal = get(mid)\r\n    val cmp =
compareValues(midVal, element)\r\n    if (cmp < 0)\r\n        low = mid + 1\r\n    else if (cmp > 0)\r\n
high = mid - 1\r\n    else\r\n        return mid // key found\r\n    }\r\n    return -(low + 1) // key not
found\r\n}\r\n\r\n**\r\n * Searches this list or its range for the provided [element] using the binary search
algorithm.\r\n * The list is expected to be sorted into ascending order according to the specified [comparator],\r\n *
otherwise the result is undefined.\r\n *@\r\n * If the list contains multiple elements equal to the specified [element],
there is no guarantee which one will be found.\r\n *@\r\n * `null` value is considered to be less than any non-null

```

```

value.\r\n * \r\n * @return the index of the element, if it is contained in the list within the specified range;\r\n *
otherwise, the inverted insertion point `(-insertion point - 1)`.\r\n * The insertion point is defined as the index at
which the element should be inserted,\r\n * so that the list (or the specified subrange of list) still remains sorted
according to the specified [comparator].\r\n * @sample
samples.collections.Collections.Lists.binarySearchWithComparator\r\n * \r\n * public fun <T>
List<T>.binarySearch(element: T, comparator: Comparator<in T>, fromIndex: Int = 0, toIndex: Int = size): Int {\r\n
    rangeCheck(size, fromIndex, toIndex)\r\n\r\n    var low = fromIndex\r\n    var high = toIndex - 1\r\n\r\n    while
(low <= high) {\r\n        val mid = (low + high).ushr(1) // safe from overflows\r\n        val midVal = get(mid)\r\n
val cmp = comparator.compare(midVal, element)\r\n\r\n        if (cmp < 0)\r\n            low = mid + 1\r\n        else if
(cmp > 0)\r\n            high = mid - 1\r\n        else\r\n            return mid // key found\r\n    }\r\n    return -(low + 1) //
key not found\r\n}\r\n\r\n/**\r\n * Searches this list or its range for an element having the key returned by the
specified [selector] function\r\n * equal to the provided [key] value using the binary search algorithm.\r\n * The list
is expected to be sorted into ascending order according to the Comparable natural ordering of keys of its
elements.\r\n * otherwise the result is undefined.\r\n * \r\n * If the list contains multiple elements with the specified
[key], there is no guarantee which one will be found.\r\n * \r\n * `null` value is considered to be less than any non-
null value.\r\n * \r\n * @return the index of the element with the specified [key], if it is contained in the list within
the specified range;\r\n * otherwise, the inverted insertion point `(-insertion point - 1)`.\r\n * The insertion point is
defined as the index at which the element should be inserted,\r\n * so that the list (or the specified subrange of list)
still remains sorted.\r\n * @sample samples.collections.Collections.Lists.binarySearchByKey\r\n * \r\n * public inline
fun <T, K : Comparable<K>> List<T>.binarySearchBy(\r\n    key: K?,\r\n    fromIndex: Int = 0,\r\n    toIndex: Int =
size,\r\n    crossinline selector: (T) -> K?,\r\n): Int =\r\n    binarySearch(fromIndex, toIndex) {
compareValues(selector(it), key) }\r\n\r\n// do not introduce this overload --- too rare\r\n// public fun <T, K>
List<T>.binarySearchBy(key: K, comparator: Comparator<K>, fromIndex: Int = 0, toIndex: Int = size(), selector:
(T) -> K): Int =\r\n    binarySearch(fromIndex, toIndex) { comparator.compare(selector(it), key)
}\r\n\r\n\r\n/**\r\n * Searches this list or its range for an element for which [comparison] function returns zero using
the binary search algorithm.\r\n * The list is expected to be sorted into ascending order according to the provided
[comparison],\r\n * otherwise the result is undefined.\r\n * \r\n * If the list contains multiple elements for which
[comparison] returns zero, there is no guarantee which one will be found.\r\n * \r\n * @param comparison function
that compares an element of the list with the element being searched.\r\n * \r\n * @return the index of the found
element, if it is contained in the list within the specified range;\r\n * otherwise, the inverted insertion point `(-
insertion point - 1)`.\r\n * The insertion point is defined as the index at which the element should be inserted,\r\n *
so that the list (or the specified subrange of list) still remains sorted.\r\n * @sample
samples.collections.Collections.Lists.binarySearchWithComparisonFunction\r\n * \r\n * public fun <T>
List<T>.binarySearch(fromIndex: Int = 0, toIndex: Int = size, comparison: (T) -> Int): Int {\r\n
    rangeCheck(size,
fromIndex, toIndex)\r\n\r\n    var low = fromIndex\r\n    var high = toIndex - 1\r\n\r\n    while (low <= high) {\r\n
val mid = (low + high).ushr(1) // safe from overflows\r\n        val midVal = get(mid)\r\n        val cmp =
comparison(midVal)\r\n\r\n        if (cmp < 0)\r\n            low = mid + 1\r\n        else if (cmp > 0)\r\n            high = mid
- 1\r\n        else\r\n            return mid // key found\r\n    }\r\n    return -(low + 1) // key not found\r\n}\r\n\r\n/**
Checks that `from` and `to` are in\r\n * the range of [0..size] and throws an appropriate exception, if they aren't.\r\n *
\r\n * \r\n * private fun rangeCheck(size: Int, fromIndex: Int, toIndex: Int) {\r\n    when {\r\n        fromIndex > toIndex ->
throw IllegalArgumentException("fromIndex ($fromIndex) is greater than toIndex ($toIndex).")\r\n        fromIndex
< 0 -> throw IndexOutOfBoundsException("fromIndex ($fromIndex) is less than zero.")\r\n        toIndex > size ->
throw IndexOutOfBoundsException("toIndex ($toIndex) is greater than size ($size).")\r\n    }\r\n}\r\n\r\n\r\n@PublishedApi\r\n@SinceKotlin("1.3")\r\ninternal expect fun checkIndexOverflow(index: Int):
Int\r\n\r\n@PublishedApi\r\n@SinceKotlin("1.3")\r\ninternal expect fun checkCountOverflow(count: Int):
Int\r\n\r\n@PublishedApi\r\n@SinceKotlin("1.3")\r\ninternal fun throwIndexOverflow() { throw
ArithmeticException("Index overflow has happened.")
}\r\n\r\n@PublishedApi\r\n@SinceKotlin("1.3")\r\ninternal fun throwCountOverflow() { throw

```



based on Guava's `com.google.common.collect.Maps` approach. This is equivalent to the `Collection` constructor for `HashSet`, `(c.size() / .75f) + 1`, but provides further optimisations for very small or very large sizes, allows support non-collection classes, and provides consistency for all map based class construction.

```

* @PublishedApi internal fun mapCapacity(expectedSize: Int): Int {
    if (expectedSize < 3) {
        return expectedSize + 1
    }
    if (expectedSize < INT_MAX_POWER_OF_TWO) {
        return expectedSize + expectedSize / 3
    }
    return Int.MAX_VALUE // any large value
}
private const val INT_MAX_POWER_OF_TWO: Int = Int.MAX_VALUE / 2 + 1
** Returns `true` if this map is not empty.
* @kotlin.internal.InlineOnly public inline fun <K, V> Map<out K, V>.isNotEmpty(): Boolean = !isEmpty()
** Returns `true` if this nullable map is either null or empty.
* @sample samples.collections.Maps.Usage.mapIsNullOrEmpty

* @SinceKotlin("1.3") @kotlin.internal.InlineOnly public inline fun <K, V> Map<out K, V>?.isNullOrEmpty(): Boolean {
    contract {
        returns(false) implies (this@isNullOrEmpty != null)
    }
    return this == null || isEmpty()
}
** Returns the [Map] if its not `null`, or the empty [Map] otherwise.
* @sample samples.collections.Maps.Usage.mapOrElse

* @kotlin.internal.InlineOnly public inline fun <K, V> Map<K, V>?.orElse(): Map<K, V> = this ?: emptyMap()
** Returns this map if it's not empty or the result of calling [defaultValue] function if the map is empty.
* @sample samples.collections.Maps.Usage.mapIfEmpty

* @SinceKotlin("1.3") @kotlin.internal.InlineOnly public inline fun <M, R> M.ifEmpty(defaultValue: () -> R): R where M : Map<*, *>, M : R {
    if (isEmpty()) defaultValue() else this
}
** Checks if the map contains the given key.
* This method allows to use the `x` in map` syntax for checking whether an object is contained in the map.
* @kotlin.internal.InlineOnly public inline operator fun <@kotlin.internal.OnlyInputTypes K, V> Map<out K, V>.contains(key: K): Boolean = containsKey(key)
** Returns the value corresponding to the given [key], or `null` if such a key is not present in the map.
* @kotlin.internal.InlineOnly public inline operator fun <@kotlin.internal.OnlyInputTypes K, V> Map<out K, V>.get(key: K): V? = @Suppress("UNCHECKED_CAST") (this as Map<K, V>).get(key)
** Allows to use the index operator for storing values in a mutable map.
* @kotlin.internal.InlineOnly public inline operator fun <K, V> MutableMap<K, V>.set(key: K, value: V): Unit {
    put(key, value)
}
** Returns `true` if the map contains the specified [key].
* Allows to overcome type-safety restriction of `containsKey` that requires to pass a key of type `K`.
* @kotlin.internal.InlineOnly public inline fun <@kotlin.internal.OnlyInputTypes K> Map<out K, *>.containsKey(key: K): Boolean = @Suppress("UNCHECKED_CAST") (this as Map<K, *>).containsKey(key)
** Returns `true` if the map maps one or more keys to the specified [value].
* Allows to overcome type-safety restriction of `containsValue` that requires to pass a value of type `V`.
* @sample samples.collections.Maps.Usage.containsValue

* @Suppress("EXTENSION_SHADOWED_BY_MEMBER") // false warning, extension takes precedence in some cases
* @kotlin.internal.InlineOnly public inline fun <K, @kotlin.internal.OnlyInputTypes V> Map<K, V>.containsValue(value: V): Boolean = this.containsValue(value)
** Removes the specified key and its corresponding value from this map.
* @return the previous value associated with the key, or `null` if the key was not present in the map.
* Allows to overcome type-safety restriction of `remove` that requires to pass a key of type `K`.
* @kotlin.internal.InlineOnly public inline fun <@kotlin.internal.OnlyInputTypes K, V> MutableMap<out K, V>.remove(key: K): V? = @Suppress("UNCHECKED_CAST") (this as MutableMap<K, V>).remove(key)
** Returns the key component of the map entry.
* This method allows to use destructuring declarations when working with maps, for example:
    for ((key, value) in map) {
        // do something with the key and the value
    }
* @kotlin.internal.InlineOnly public inline operator fun <K, V> Map.Entry<K, V>.component1(): K = key
** Returns the value component of the map entry.
* This method allows to use destructuring declarations when working with maps, for example:
    for ((key, value) in map) {
        //

```



.optimizeReadOnlyMap()\r\n}\r\n\r\n/\*\*\r\n \* Returns a new Map with entries having the keys obtained by applying the [transform] function to each entry in this\r\n \* [Map] and the values of this map.\r\n \* \*\r\n \* In case if any two entries are mapped to the equal keys, the value of the latter one will overwrite\r\n \* the value associated with the former one.\r\n \* \*\r\n \* The returned map preserves the entry iteration order of the original map.\r\n \* \*\r\n \* @sample samples.collections.Maps.Transformations.mapKeys\r\n \*/\r\npublic inline fun <K, V, R> Map<out K, V>.mapKeys(transform: (Map.Entry<K, V>) -> R): Map<R, V> {\r\n return mapKeysTo(LinkedHashMap<R, V>(mapCapacity(size)), transform) // .optimizeReadOnlyMap()\r\n}\r\n\r\n/\*\*\r\n \* Returns a map containing all key-value pairs with keys matching the given [predicate].\r\n \* \*\r\n \* The returned map preserves the entry iteration order of the original map.\r\n \* \*\r\n \* @sample samples.collections.Maps.Filtering.filterKeys\r\n \*/\r\npublic inline fun <K, V> Map<out K, V>.filterKeys(predicate: (K) -> Boolean): Map<K, V> {\r\n val result = LinkedHashMap<K, V>()\r\n for (entry in this) {\r\n if (predicate(entry.key)) {\r\n result.put(entry.key, entry.value)\r\n }\r\n }\r\n return result\r\n}\r\n\r\n/\*\*\r\n \* Returns a map containing all key-value pairs with values matching the given [predicate].\r\n \* \*\r\n \* The returned map preserves the entry iteration order of the original map.\r\n \* \*\r\n \* @sample samples.collections.Maps.Filtering.filterValues\r\n \*/\r\npublic inline fun <K, V> Map<out K, V>.filterValues(predicate: (V) -> Boolean): Map<K, V> {\r\n val result = LinkedHashMap<K, V>()\r\n for (entry in this) {\r\n if (predicate(entry.value)) {\r\n result.put(entry.key, entry.value)\r\n }\r\n }\r\n return result\r\n}\r\n\r\n/\*\*\r\n \* Appends all entries matching the given [predicate] into the mutable map given as [destination] parameter.\r\n \* \*\r\n \* @return the destination map.\r\n \* \*\r\n \* @sample samples.collections.Maps.Filtering.filterTo\r\n \*/\r\npublic inline fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.filterTo(destination: M, predicate: (Map.Entry<K, V>) -> Boolean): M {\r\n for (element in this) {\r\n if (predicate(element)) {\r\n destination.put(element.key, element.value)\r\n }\r\n }\r\n return destination\r\n}\r\n\r\n/\*\*\r\n \* Returns a new map containing all key-value pairs matching the given [predicate].\r\n \* \*\r\n \* The returned map preserves the entry iteration order of the original map.\r\n \* \*\r\n \* @sample samples.collections.Maps.Filtering.filter\r\n \*/\r\npublic inline fun <K, V> Map<out K, V>.filter(predicate: (Map.Entry<K, V>) -> Boolean): Map<K, V> {\r\n return filterTo(LinkedHashMap<K, V>(), predicate)\r\n}\r\n\r\n/\*\*\r\n \* Appends all entries not matching the given [predicate] into the given [destination].\r\n \* \*\r\n \* @return the destination map.\r\n \* \*\r\n \* @sample samples.collections.Maps.Filtering.filterNotTo\r\n \*/\r\npublic inline fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.filterNotTo(destination: M, predicate: (Map.Entry<K, V>) -> Boolean): M {\r\n for (element in this) {\r\n if (!predicate(element)) {\r\n destination.put(element.key, element.value)\r\n }\r\n }\r\n return destination\r\n}\r\n\r\n/\*\*\r\n \* Returns a new map containing all key-value pairs not matching the given [predicate].\r\n \* \*\r\n \* The returned map preserves the entry iteration order of the original map.\r\n \* \*\r\n \* @sample samples.collections.Maps.Filtering.filterNot\r\n \*/\r\npublic inline fun <K, V> Map<out K, V>.filterNot(predicate: (Map.Entry<K, V>) -> Boolean): Map<K, V> {\r\n return filterNotTo(LinkedHashMap<K, V>(), predicate)\r\n}\r\n\r\n/\*\*\r\n \* Returns a new map containing all key-value pairs from the given collection of pairs.\r\n \* \*\r\n \* The returned map preserves the entry iteration order of the original collection.\r\n \* \*\r\n \* If any of two pairs would have the same key the last one gets added to the map.\r\n \* \*\r\n \* @sample samples.collections.Maps.toMap\r\n \*/\r\npublic fun <K, V> Iterable<Pair<K, V>>.toMap(): Map<K, V> {\r\n if (this is Collection) {\r\n return when (size) {\r\n 0 -> emptyMap()\r\n 1 -> mapOf(if (this is List) this[0] else iterator().next())\r\n else -> toMap(LinkedHashMap<K, V>(mapCapacity(size)))\r\n }\r\n }\r\n return toMap(LinkedHashMap<K, V>()).optimizeReadOnlyMap()\r\n}\r\n\r\n/\*\*\r\n \* Populates and returns the [destination] mutable map with key-value pairs from the given collection of pairs.\r\n \* \*\r\n \* @sample samples.collections.Maps.toMap\r\n \*/\r\npublic fun <K, V, M : MutableMap<in K, in V>> Iterable<Pair<K, V>>.toMap(destination: M): M =\r\n destination.apply {\r\n putAll(this@toMap) }\r\n\r\n/\*\*\r\n \* Returns a new map containing all key-value pairs from the given array of pairs.\r\n \* \*\r\n \* The returned map preserves the entry iteration order of the original array.\r\n \* \*\r\n \* If any of two pairs would have the same key the last one gets added to the map.\r\n \* \*\r\n \* @sample samples.collections.Maps.toMap\r\n \*/\r\npublic fun <K, V> Array<out Pair<K, V>>.toMap(): Map<K, V> = when (size) {\r\n 0 -> emptyMap()\r\n 1 -> mapOf(this[0])\r\n else -> toMap(LinkedHashMap<K, V>(mapCapacity(size)))\r\n}\r\n\r\n/\*\*\r\n \* Populates and returns the [destination] mutable map with key-value pairs from the given array of pairs.\r\n \* \*\r\n \* @sample samples.collections.Maps.toMap\r\n \*/\r\npublic fun <K, V, M : MutableMap<in K,

```

in V>> Array<out Pair<K, V>>.toMap(destination: M): M => destination.apply { putAll(this@toMap)
}

/**
 * Returns a new map containing all key-value pairs from the given sequence of pairs.
 * The returned map preserves the entry iteration order of the original sequence.
 * If any of two pairs would have the same key the last one gets added to the map.
 */
public fun <K, V> Sequence<Pair<K, V>>.toMap(): Map<K, V> = toMap(LinkedHashMap<K, V>()).optimizeReadOnlyMap()

/**
 * Populates and returns the [destination] mutable map with key-value pairs from the given sequence of pairs.
 */
public fun <K, V, M : MutableMap<in K, in V>> Sequence<Pair<K, V>>.toMap(destination: M): M => destination.apply {
    putAll(this@toMap)
}

/**
 * Returns a new read-only map containing all key-value pairs from the original map.
 * The returned map preserves the entry iteration order of the original map.
 */
@SinceKotlin("1.1")
public fun <K, V> Map<out K, V>.toMap(): Map<K, V> = when (size) {
    0 -> emptyMap()
    1 -> toSingletonMap()
    else -> toMutableMap()
}

/**
 * Returns a new mutable map containing all key-value pairs from the original map.
 * The returned map preserves the entry iteration order of the original map.
 */
@SinceKotlin("1.1")
public fun <K, V> Map<out K, V>.toMutableMap(): MutableMap<K, V> = LinkedHashMap(this)

/**
 * Populates and returns the [destination] mutable map with key-value pairs from the given map.
 */
@SinceKotlin("1.1")
public fun <K, V, M : MutableMap<in K, in V>> Map<out K, V>.toMap(destination: M): M => destination.apply {
    putAll(this@toMap)
}

/**
 * Creates a new read-only map by replacing or adding an entry to this map from a given key-value [pair].
 * The returned map preserves the entry iteration order of the original map.
 * The [pair] is iterated in the end if it has a unique key.
 */
public operator fun <K, V> Map<out K, V>.plus(pair: Pair<K, V>): Map<K, V> => if (this.isEmpty()) mapOf(pair) else LinkedHashMap(this).apply {
    put(pair.first, pair.second)
}

/**
 * Creates a new read-only map by replacing or adding entries to this map from a given collection of key-value [pairs].
 * The returned map preserves the entry iteration order of the original map.
 * Those [pairs] with unique keys are iterated in the end in the order of [pairs] collection.
 */
public operator fun <K, V> Map<out K, V>.plus(pairs: Iterable<Pair<K, V>>): Map<K, V> => if (this.isEmpty()) pairs.toMap() else LinkedHashMap(this).apply {
    putAll(pairs)
}

/**
 * Creates a new read-only map by replacing or adding entries to this map from a given array of key-value [pairs].
 * The returned map preserves the entry iteration order of the original map.
 * Those [pairs] with unique keys are iterated in the end in the order of [pairs] array.
 */
public operator fun <K, V> Map<out K, V>.plus(pairs: Array<out Pair<K, V>>): Map<K, V> => if (this.isEmpty()) pairs.toMap() else LinkedHashMap(this).apply {
    putAll(pairs)
}

/**
 * Creates a new read-only map by replacing or adding entries to this map from a given sequence of key-value [pairs].
 * The returned map preserves the entry iteration order of the original map.
 * Those [pairs] with unique keys are iterated in the end in the order of [pairs] sequence.
 */
public operator fun <K, V> Map<out K, V>.plus(pairs: Sequence<Pair<K, V>>): Map<K, V> => LinkedHashMap(this).apply {
    putAll(pairs)
}.optimizeReadOnlyMap()

/**
 * Creates a new read-only map by replacing or adding entries to this map from another [map].
 * The returned map preserves the entry iteration order of the original map.
 * Those entries of another [map] that are missing in this map are iterated in the end in the order of that [map].
 */
public operator fun <K, V> Map<out K, V>.plus(map: Map<out K, V>): Map<K, V> => LinkedHashMap(this).apply {
    putAll(map)
}

/**
 * Appends or replaces the given [pair] in this mutable map.
 */
@kotlin.internal.InlineOnly
public inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pair: Pair<K, V>) {
    put(pair.first, pair.second)
}

/**
 * Appends or replaces all pairs from the given collection of [pairs] in this mutable map.
 */
@kotlin.internal.InlineOnly
public inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Iterable<Pair<K, V>>) {
    putAll(pairs)
}

/**
 * Appends or replaces all pairs from the given array of [pairs] in this mutable map.
 */
@kotlin.internal.InlineOnly
public inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Array<out Pair<K, V>>) {
    putAll(pairs)
}

/**
 * Appends or replaces all pairs from the given sequence of [pairs] in this mutable map.
 */
@kotlin.internal.InlineOnly
public inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(pairs: Sequence<Pair<K, V>>) {
    putAll(pairs)
}

/**
 * Appends or replaces all entries from the given [map] in this mutable map.
 */

```

```

*\/r\n@kotlin.internal.InlineOnly\r\npublic inline operator fun <K, V> MutableMap<in K, in V>.plusAssign(map:
Map<K, V>) {\r\n    putAll(map)\r\n}\r\n\r\n**\r\n * Returns a map containing all entries of the original map except
the entry with the given [key].\r\n * The returned map preserves the entry iteration order of the original
map.\r\n *\/r\n@SinceKotlin("1.1")\r\npublic operator fun <K, V> Map<out K, V>.minus(key: K): Map<K, V>
=\r\n    this.toMutableMap().apply { minusAssign(key) }.optimizeReadOnlyMap()\r\n\r\n**\r\n * Returns a map
containing all entries of the original map except those entries\r\n * the keys of which are contained in the given
[keys] collection.\r\n * The returned map preserves the entry iteration order of the original map.\r\n
*\/r\n@SinceKotlin("1.1")\r\npublic operator fun <K, V> Map<out K, V>.minus(keys: Iterable<K>): Map<K, V>
=\r\n    this.toMutableMap().apply { minusAssign(keys) }.optimizeReadOnlyMap()\r\n\r\n**\r\n * Returns a map
containing all entries of the original map except those entries\r\n * the keys of which are contained in the given
[keys] array.\r\n * The returned map preserves the entry iteration order of the original map.\r\n
*\/r\n@SinceKotlin("1.1")\r\npublic operator fun <K, V> Map<out K, V>.minus(keys: Array<out K>): Map<K,
V> =\r\n    this.toMutableMap().apply { minusAssign(keys) }.optimizeReadOnlyMap()\r\n\r\n**\r\n * Returns a
map containing all entries of the original map except those entries\r\n * the keys of which are contained in the given
[keys] sequence.\r\n * The returned map preserves the entry iteration order of the original map.\r\n
*\/r\n@SinceKotlin("1.1")\r\npublic operator fun <K, V> Map<out K, V>.minus(keys: Sequence<K>): Map<K,
V> =\r\n    this.toMutableMap().apply { minusAssign(keys) }.optimizeReadOnlyMap()\r\n\r\n**\r\n * Removes the
entry with the given [key] from this mutable map.\r\n
*\/r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\npublic inline operator fun <K, V> MutableMap<K,
V>.minusAssign(key: K) {\r\n    remove(key)\r\n}\r\n\r\n**\r\n * Removes all entries the keys of which are
contained in the given [keys] collection from this mutable map.\r\n
*\/r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\npublic inline operator fun <K, V> MutableMap<K,
V>.minusAssign(keys: Iterable<K>) {\r\n    this.keys.removeAll(keys)\r\n}\r\n\r\n**\r\n * Removes all entries the
keys of which are contained in the given [keys] array from this mutable map.\r\n
*\/r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\npublic inline operator fun <K, V> MutableMap<K,
V>.minusAssign(keys: Array<out K>) {\r\n    this.keys.removeAll(keys)\r\n}\r\n\r\n**\r\n * Removes all entries
from the keys of which are contained in the given [keys] sequence from this mutable map.\r\n
*\/r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\npublic inline operator fun <K, V> MutableMap<K,
V>.minusAssign(keys: Sequence<K>) {\r\n    this.keys.removeAll(keys)\r\n}\r\n\r\n\r\n// do not expose for now
@PublishedApi\r\ninternal fun <K, V> Map<K, V>.optimizeReadOnlyMap() = when (size) {\r\n    0 ->
emptyMap()\r\n    1 -> toSingletonMapOrSelf()\r\n    else -> this\r\n}\r\n\r\n**\r\n * Copyright 2010-2018 JetBrains
s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\r\n
*\/r\n\r\n@file:kotlin.jvm.JvmMultifileClass\r\n@file:kotlin.jvm.JvmName("SetsKt")\r\n\r\npackage
kotlin.collections\r\n\r\n\r\ninternal object EmptySet : Set<Nothing>, Serializable {\r\n    private const val
serialVersionUID: Long = 3406603774387020532\r\n\r\n    override fun equals(other: Any?): Boolean = other is
Set<*> && other.isEmpty()\r\n    override fun hashCode(): Int = 0\r\n    override fun toString(): String =
"[]"\r\n\r\n    override val size: Int get() = 0\r\n    override fun isEmpty(): Boolean = true\r\n    override fun
contains(element: Nothing): Boolean = false\r\n    override fun containsAll(elements: Collection<Nothing>):
Boolean = elements.isEmpty()\r\n\r\n    override fun iterator(): Iterator<Nothing> = EmptyIterator\r\n\r\n    private
fun readResolve(): Any = EmptySet\r\n}\r\n\r\n\r\n**\r\n * Returns an empty read-only set. The returned set is
serializable (JVM).\r\n * @sample samples.collections.Collections.Sets.emptyReadOnlySet\r\n *\/r\npublic fun <T>
emptySet(): Set<T> = EmptySet\r\n\r\n**\r\n * Returns a new read-only set with the given elements.\r\n * Elements
of the set are iterated in the order they were specified.\r\n * The returned set is serializable (JVM).\r\n * @sample
samples.collections.Collections.Sets.readOnlySet\r\n *\/r\npublic fun <T> setOf(vararg elements: T): Set<T> = if
(elements.size > 0) elements.toSet() else emptySet()\r\n\r\n**\r\n * Returns an empty read-only set. The returned
set is serializable (JVM).\r\n * @sample samples.collections.Collections.Sets.emptyReadOnlySet\r\n
*\/r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T> setOf(): Set<T> = emptySet()\r\n\r\n**\r\n * Returns an

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empty new [MutableSet].\r\n * \r\n * The returned set preserves the element iteration order.\r\n * @sample
samples.collections.Collections.Sets.emptyMutableSet\r\n
*\r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T> mutableSetOf():
MutableSet<T> = LinkedHashSet()\r\n\r\n/**\r\n * Returns a new [MutableSet] with the given elements.\r\n *
Elements of the set are iterated in the order they were specified.\r\n * @sample
samples.collections.Collections.Sets.mutableSet\r\n */\r\npublic fun <T> mutableSetOf(vararg elements: T):
MutableSet<T> = elements.toCollection(LinkedHashSet(mapCapacity(elements.size)))\r\n\r\n/** Returns an empty
new [HashSet]. */\r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T> hashSetOf():
HashSet<T> = HashSet()\r\n\r\n/** Returns a new [HashSet] with the given elements. */\r\npublic fun <T>
hashSetOf(vararg elements: T): HashSet<T> =
elements.toCollection(HashSet(mapCapacity(elements.size)))\r\n\r\n/** Returns an empty new [LinkedHashSet].
*/\r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T> linkedSetOf():
LinkedHashSet<T> = LinkedHashSet()\r\n\r\n/**\r\n * Returns a new [LinkedHashSet] with the given elements.\r\n
* Elements of the set are iterated in the order they were specified.\r\n */\r\npublic fun <T> linkedSetOf(vararg
elements: T): LinkedHashSet<T> = elements.toCollection(LinkedHashSet(mapCapacity(elements.size)))\r\n\r\n/**
Returns this Set if it's not `null` and the empty set otherwise. */\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
<T> Set<T>?.orEmpty(): Set<T> = this ?: emptySet()\r\n\r\ninternal fun <T> Set<T>.optimizeReadOnlySet() =
when (size) {\r\n    0 -> emptySet()\r\n    1 -> setOf(iterator().next())\r\n    else -> this\r\n}\r\n", "*/\r\n * Copyright
2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n
*/\r\n\r\n@file:kotlin.jvm.JvmMultifileClass\r\n@file:kotlin.jvm.JvmName("StringsKt")\r\n@file:Suppress("PLA
TFORM_CLASS_MAPPED_TO_KOTLIN")\r\n\r\npackage kotlin.text\r\n\r\n/**\r\n * Parses the string as a signed
[Byte] number and returns the result\r\n * or `null` if the string is not a valid representation of a number.\r\n
*/\r\n@SinceKotlin("1.1")\r\npublic fun String.toByteArrayOrNull(): Byte? = toByteOrNull(radix = 10)\r\n\r\n/**\r\n *
Parses the string as a signed [Byte] number and returns the result\r\n * or `null` if the string is not a valid
representation of a number.\r\n */\r\n * @throws IllegalArgumentException when [radix] is not a valid radix for
string to number conversion.\r\n */\r\n@SinceKotlin("1.1")\r\npublic fun String.toByteArrayOrNull(radix: Int): Byte?
{\r\n    val int = this.toIntOrNull(radix) ?: return null\r\n    if (int < Byte.MIN_VALUE || int > Byte.MAX_VALUE)
return null\r\n    return int.toByte()\r\n}\r\n\r\n/**\r\n * Parses the string as a [Short] number and returns the
result\r\n * or `null` if the string is not a valid representation of a number.\r\n */\r\n@SinceKotlin("1.1")\r\npublic
fun String.toShortOrNull(): Short? = toShortOrNull(radix = 10)\r\n\r\n/**\r\n * Parses the string as a [Short] number
and returns the result\r\n * or `null` if the string is not a valid representation of a number.\r\n */\r\n * @throws
IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\r\n
*/\r\n@SinceKotlin("1.1")\r\npublic fun String.toShortOrNull(radix: Int): Short? {\r\n    val int =
this.toIntOrNull(radix) ?: return null\r\n    if (int < Short.MIN_VALUE || int > Short.MAX_VALUE) return null\r\n
    return int.toShort()\r\n}\r\n\r\n/**\r\n * Parses the string as an [Int] number and returns the result\r\n * or `null` if
the string is not a valid representation of a number.\r\n */\r\n@SinceKotlin("1.1")\r\npublic fun
String.toIntOrNull(): Int? = toIntOrNull(radix = 10)\r\n\r\n/**\r\n * Parses the string as an [Int] number and returns
the result\r\n * or `null` if the string is not a valid representation of a number.\r\n */\r\n * @throws
IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\r\n
*/\r\n@SinceKotlin("1.1")\r\npublic fun String.toIntOrNull(radix: Int): Int? {\r\n    checkRadix(radix)\r\n\r\n    val
length = this.length\r\n    if (length == 0) return null\r\n\r\n    val start: Int\r\n    val isNegative: Boolean\r\n    val
limit: Int\r\n\r\n    val firstChar = this[0]\r\n    if (firstChar < '0') { // Possible leading sign\r\n        if (length == 1)
return null // non-digit (possible sign) only, no digits after\r\n\r\n        start = 1\r\n\r\n        if (firstChar == '-') {\r\n
            isNegative = true\r\n            limit = Int.MIN_VALUE\r\n        } else if (firstChar == '+') {\r\n            isNegative =
false\r\n            limit = -Int.MAX_VALUE\r\n        } else\r\n            return null\r\n        } else {\r\n            start = 0\r\n
            isNegative = false\r\n            limit = -Int.MAX_VALUE\r\n        }\r\n\r\n        val limitBeforeMul = limit / radix\r\n        var
result = 0\r\n        for (i in start..(length - 1)) {\r\n            val digit = digitOf(this[i], radix)\r\n\r\n            if (digit < 0) return

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infinite.\r\n * \r\n * @sample samples.collections.Sequences.Building.sequenceFromIterator\r\n
*\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T> Sequence(crossinline iterator: () -> Iterator<T>):
Sequence<T> = object : Sequence<T> {\r\n    override fun iterator(): Iterator<T> = iterator()\r\n}\r\n\r\n**\r\n *
Creates a sequence that returns all elements from this iterator. The sequence is constrained to be iterated only
once.\r\n * \r\n * @sample samples.collections.Sequences.Building.sequenceFromIterator\r\n * \r\npublic fun <T>
Iterator<T>.asSequence(): Sequence<T> = Sequence { this }.constrainOnce()\r\n\r\n**\r\n * Creates a sequence
that returns the specified values.\r\n * \r\n * @sample samples.collections.Sequences.Building.sequenceOfValues\r\n
*\r\npublic fun <T> sequenceOf(vararg elements: T): Sequence<T> = if (elements.isEmpty()) emptySequence()
else elements.asSequence()\r\n\r\n**\r\n * Returns an empty sequence.\r\n * \r\npublic fun <T> emptySequence():
Sequence<T> = EmptySequence\r\n\r\nprivate object EmptySequence : Sequence<Nothing>,
DropTakeSequence<Nothing> {\r\n    override fun iterator(): Iterator<Nothing> = EmptyIterator\r\n    override fun
drop(n: Int) = EmptySequence\r\n    override fun take(n: Int) = EmptySequence\r\n}\r\n\r\n**\r\n * Returns this
sequence if it's not `null` and the empty sequence otherwise.\r\n * @sample
samples.collections.Sequences.Usage.sequenceOrEmpty\r\n
*\r\n@SinceKotlin("1.3")\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T> Sequence<T>?.orEmpty():
Sequence<T> = this ?: emptySequence()\r\n\r\n\r\n**\r\n * Returns a sequence that iterates through the elements
either of this sequence\r\n * or, if this sequence turns out to be empty, of the sequence returned by [defaultValue]
function.\r\n * \r\n * @sample samples.collections.Sequences.Usage.sequenceIfEmpty\r\n
*\r\n@SinceKotlin("1.3")\r\npublic fun <T> Sequence<T>.ifEmpty(defaultValue: () -> Sequence<T>):
Sequence<T> = sequence {\r\n    val iterator = this@ifEmpty.iterator()\r\n    if (iterator.hasNext()) {\r\n
yieldAll(iterator)\r\n    } else {\r\n        yieldAll(defaultValue())\r\n    }\r\n}\r\n\r\n**\r\n * Returns a sequence of all
elements from all sequences in this sequence.\r\n * \r\n * The operation is _intermediate_ and _stateless_.\r\n
*\r\npublic fun <T> Sequence<Sequence<T>>.flatten(): Sequence<T> = flatten { it.iterator() }\r\n\r\n**\r\n *
Returns a sequence of all elements from all iterables in this sequence.\r\n * \r\n * The operation is _intermediate_ and
_stateless_.\r\n * \r\n@kotlin.jvm.JvmName("flattenSequenceOfIterable")\r\npublic fun <T>
Sequence<Iterable<T>>.flatten(): Sequence<T> = flatten { it.iterator() }\r\n\r\nprivate fun <T, R>
Sequence<T>.flatten(iterator: (T) -> Iterator<R>): Sequence<R> {\r\n    if (this is TransformingSequence<*, *>)
{\r\n        return (this as TransformingSequence<*, T>).flatten(iterator)\r\n    }\r\n    return FlatteningSequence(this,
{ it }, iterator)\r\n}\r\n\r\n**\r\n * Returns a pair of lists, where\r\n * *first* list is built from the first values of each
pair from this sequence.\r\n * *second* list is built from the second values of each pair from this sequence.\r\n * \r\n
* The operation is _terminal_.\r\n * \r\npublic fun <T, R> Sequence<Pair<T, R>>.unzip(): Pair<List<T>, List<R>>
{\r\n    val listT = ArrayList<T>()\r\n    val listR = ArrayList<R>()\r\n    for (pair in this) {\r\n
listT.add(pair.first)\r\n        listR.add(pair.second)\r\n    }\r\n    return listT to listR\r\n}\r\n\r\n**\r\n * A sequence
that returns the values from the underlying [sequence] that either match or do not match\r\n * the specified
[predicate].\r\n * \r\n * @param sendWhen If `true`, values for which the predicate returns `true` are returned.
Otherwise,\r\n * values for which the predicate returns `false` are returned\r\n * \r\ninternal class
FilteringSequence<T>(\r\n    private val sequence: Sequence<T>,\r\n    private val sendWhen: Boolean = true,\r\n    private val predicate: (T) -> Boolean\r\n) : Sequence<T> {\r\n    override fun iterator(): Iterator<T> = object :
Iterator<T> {\r\n        val iterator = sequence.iterator()\r\n        var nextState: Int = -1 // -1 for unknown, 0 for done, 1
for continue\r\n        var nextItem: T? = null\r\n        private fun calcNext() {\r\n            while (iterator.hasNext())
{\r\n                val item = iterator.next()\r\n                if (predicate(item) == sendWhen) {\r\n                    nextItem =
item\r\n                    nextState = 1\r\n                    return\r\n                }\r\n                nextState = 0\r\n
}\r\n\r\n            override fun next(): T {\r\n                if (nextState == -1)\r\n                    calcNext()\r\n                if (nextState
== 0)\r\n                    throw NoSuchElementException()\r\n                val result = nextItem\r\n                nextItem = null\r\n
                nextState = -1\r\n                @Suppress("UNCHECKED_CAST")\r\n                return result as T\r\n            }\r\n\r\n
            override fun hasNext(): Boolean {\r\n                if (nextState == -1)\r\n                    calcNext()\r\n                return nextState
== 1\r\n            }\r\n        }\r\n    }\r\n}\r\n\r\n**\r\n * A sequence which returns the results of applying the given [transformer]
function to the values\r\n * in the underlying [sequence].\r\n * \r\ninternal class TransformingSequence<T,

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R>\r\nconstructor(private val sequence: Sequence<T>, private val transformer: (T) -> R) : Sequence<R> {\r\n
override fun iterator(): Iterator<R> = object : Iterator<R> {\r\n    val iterator = sequence.iterator()\r\n    override
fun next(): R {\r\n        return transformer(iterator.next())\r\n    }\r\n\r\n    override fun hasNext(): Boolean
{\r\n        return iterator.hasNext()\r\n    }\r\n}\r\n\r\n    internal fun <E> flatten(iterator: (R) -> Iterator<E>):
Sequence<E> {\r\n        return FlatteningSequence<T, R, E>(sequence, transformer, iterator)\r\n    }\r\n}\r\n\r\n\r\n**\r\n * A sequence which returns the results of applying the given [transformer] function to the
values\r\n * in the underlying [sequence], where the transformer function takes the index of the value in the
underlying\r\n * sequence along with the value itself.\r\n *
\r\n * internal class TransformingIndexedSequence<T,
R>\r\nconstructor(private val sequence: Sequence<T>, private val transformer: (Int, T) -> R) : Sequence<R> {\r\n
override fun iterator(): Iterator<R> = object : Iterator<R> {\r\n    val iterator = sequence.iterator()\r\n    var
index = 0\r\n    override fun next(): R {\r\n        return transformer(checkIndexOverflow(index++),
iterator.next())\r\n    }\r\n\r\n    override fun hasNext(): Boolean {\r\n        return iterator.hasNext()\r\n
}\r\n    }\r\n}\r\n\r\n**\r\n * A sequence which combines values from the underlying [sequence] with their indices
and returns them as\r\n * [IndexedValue] objects.\r\n *
\r\n * internal class
IndexingSequence<T>\r\nconstructor(private val sequence: Sequence<T>) : Sequence<IndexedValue<T>> {\r\n
override fun iterator(): Iterator<IndexedValue<T>> = object : Iterator<IndexedValue<T>> {\r\n    val iterator =
sequence.iterator()\r\n    var index = 0\r\n    override fun next(): IndexedValue<T> {\r\n        return
IndexedValue(checkIndexOverflow(index++), iterator.next())\r\n    }\r\n\r\n    override fun hasNext(): Boolean
{\r\n        return iterator.hasNext()\r\n    }\r\n    }\r\n}\r\n\r\n**\r\n * A sequence which takes the values from
two parallel underlying sequences, passes them to the given\r\n * [transform] function and returns the values
returned by that function. The sequence stops returning\r\n * values as soon as one of the underlying sequences stops
returning values.\r\n *
\r\n * internal class MergingSequence<T1, T2, V>\r\nconstructor(\r\n    private val sequence1:
Sequence<T1>,\r\n    private val sequence2: Sequence<T2>,\r\n    private val transform: (T1, T2) -> V\r\n) :
Sequence<V> {\r\n    override fun iterator(): Iterator<V> = object : Iterator<V> {\r\n        val iterator1 =
sequence1.iterator()\r\n        val iterator2 = sequence2.iterator()\r\n        override fun next(): V {\r\n            return
transform(iterator1.next(), iterator2.next())\r\n        }\r\n\r\n        override fun hasNext(): Boolean {\r\n            return
iterator1.hasNext() && iterator2.hasNext()\r\n        }\r\n    }\r\n}\r\n\r\n**\r\n * A sequence that
supports drop(n) and take(n) operations\r\n *
\r\n * internal interface DropTakeSequence<T> : Sequence<T> {\r\n
fun drop(n: Int): Sequence<T>\r\n    fun take(n: Int): Sequence<T>\r\n}\r\n\r\n**\r\n * A sequence that skips
[startIndex] values from the underlying [sequence]\r\n * and stops returning values right before [endIndex], i.e. stops
at `endIndex - 1`\r\n *
\r\n * internal class SubSequence<T>(\r\n    private val sequence: Sequence<T>,\r\n    private
val startIndex: Int,\r\n    private val endIndex: Int\r\n) : Sequence<T>, DropTakeSequence<T> {\r\n\r\n    init {\r\n
require(startIndex >= 0) { \"startIndex should be non-negative, but is $startIndex\" }\r\n        require(endIndex >=
0) { \"endIndex should be non-negative, but is $endIndex\" }\r\n        require(endIndex >= startIndex) { \"endIndex
should be not less than startIndex, but was $endIndex < $startIndex\" }\r\n    }\r\n\r\n    private val count: Int get() =
endIndex - startIndex\r\n\r\n    override fun drop(n: Int): Sequence<T> = if (n >= count) emptySequence() else
SubSequence(sequence, startIndex + n, endIndex)\r\n\r\n    override fun take(n: Int): Sequence<T> = if (n >= count) this

```







```

samples.collections.Collections.Elements.elementAt\n * \npublic actual fun ByteArray.elementAt(index: Int): Byte
{\n  return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size: $size}")
}\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is
out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n * \npublic
actual fun ShortArray.elementAt(index: Int): Short {\n  return elementAtOrElse(index) { throw
IndexOutOfBoundsException("index: $index, size: $size}") }\n}\n\n/**\n * Returns an element at the given
[index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n * \npublic actual fun IntArray.elementAt(index: Int): Int {\n
return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size: $size}") }\n}\n\n/**\n
 * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds
of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n * \npublic actual fun
LongArray.elementAt(index: Int): Long {\n  return elementAtOrElse(index) { throw
IndexOutOfBoundsException("index: $index, size: $size}") }\n}\n\n/**\n * Returns an element at the given
[index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n * \npublic actual fun FloatArray.elementAt(index: Int): Float
{\n  return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size: $size}")
}\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is
out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n * \npublic
actual fun DoubleArray.elementAt(index: Int): Double {\n  return elementAtOrElse(index) { throw
IndexOutOfBoundsException("index: $index, size: $size}") }\n}\n\n/**\n * Returns an element at the given
[index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n * \npublic actual fun BooleanArray.elementAt(index: Int):
Boolean {\n  return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size: $size")
}\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is
out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n * \npublic
actual fun CharArray.elementAt(index: Int): Char {\n  return elementAtOrElse(index) { throw
IndexOutOfBoundsException("index: $index, size: $size") }\n}\n\n/**\n * Returns a [List] that wraps the original
array.\n * \npublic actual fun <T> Array<out T>.asList(): List<T> {\n  return
ArrayList<T>(this.unsafeCast<Array<Any?>>())\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
 * \n * \n@kotlin.internal.InlineOnly\npublic actual inline fun ByteArray.asList(): List<Byte> {\n  return
this.unsafeCast<Array<Byte>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
 * \n * \n@kotlin.internal.InlineOnly\npublic actual inline fun ShortArray.asList(): List<Short> {\n  return
this.unsafeCast<Array<Short>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
 * \n * \n@kotlin.internal.InlineOnly\npublic actual inline fun IntArray.asList(): List<Int> {\n  return
this.unsafeCast<Array<Int>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
 * \n * \n@kotlin.internal.InlineOnly\npublic actual inline fun LongArray.asList(): List<Long> {\n  return
this.unsafeCast<Array<Long>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
 * \n * \n@kotlin.internal.InlineOnly\npublic actual inline fun FloatArray.asList(): List<Float> {\n  return
this.unsafeCast<Array<Float>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
 * \n * \n@kotlin.internal.InlineOnly\npublic actual inline fun DoubleArray.asList(): List<Double> {\n  return
this.unsafeCast<Array<Double>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
 * \n * \n@kotlin.internal.InlineOnly\npublic actual inline fun BooleanArray.asList(): List<Boolean> {\n  return
this.unsafeCast<Array<Boolean>>().asList()\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
 * \n * \npublic actual fun CharArray.asList(): List<Char> {\n  return object : ArrayList<Char>(), RandomAccess {\n
    override val size: Int get() = this@asList.size\n    override fun isEmpty(): Boolean = this@asList.isEmpty()\n
    override fun contains(element: Char): Boolean = this@asList.contains(element)\n    override fun get(index: Int):
Char {\n      ArrayList.checkElementIndex(index, size)\n      return this@asList[index]\n    }\n  }\n  override fun indexOf(element: Char): Int {\n    if ((element as Any?) !is Char) return -1\n    return

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this@asList.indexOf(element)\n    }\n    override fun lastIndexOf(element: Char): Int {\n        if ((element as
Any?) !is Char) return -1\n        return this@asList.lastIndexOf(element)\n    }\n}\n}\n\n**\n * Returns
`true` if the two specified arrays are *deeply* equal to one another,\n * i.e. contain the same number of the same
elements in the same order.\n * \n * If two corresponding elements are nested arrays, they are also compared
deeply.\n * If any of arrays contains itself on any nesting level the behavior is undefined.\n * \n * The elements of
other types are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it
means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*\n@SinceKotlin("1.1")\n@library("arrayDeepEquals")\npublic actual infix fun <T> Array<out
T>.contentDeepEquals(other: Array<out T>): Boolean {\n    definedExternally\n}\n\n**\n * Returns a hash code
based on the contents of this array as if it is [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays
contains itself on any nesting level the behavior is undefined.\n
*\n@SinceKotlin("1.1")\n@library("arrayDeepHashCode")\npublic actual fun <T> Array<out
T>.contentDeepHashCode(): Int {\n    definedExternally\n}\n\n**\n * Returns a string representation of the
contents of this array as if it is a [List].\n * Nested arrays are treated as lists too.\n * \n * If any of arrays contains
itself on any nesting level that reference\n * is rendered as `"[...]"` to prevent recursion.\n * \n * @sample
samples.collections.Arrays.ContentOperations.contentDeepToString\n
*\n@SinceKotlin("1.1")\n@library("arrayDeepToString")\npublic actual fun <T> Array<out
T>.contentDeepToString(): String {\n    definedExternally\n}\n\n**\n * Returns `true` if the two specified arrays
are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n *
\n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers
it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*\n@SinceKotlin("1.1")\n@library("arrayEquals")\npublic actual infix fun <T> Array<out
T>.contentEquals(other: Array<out T>): Boolean {\n    definedExternally\n}\n\n**\n * Returns `true` if the two
specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the
same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating
point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*\n@SinceKotlin("1.1")\n@library("arrayEquals")\npublic actual infix fun ByteArray.contentEquals(other:
ByteArray): Boolean {\n    definedExternally\n}\n\n**\n * Returns `true` if the two specified arrays are
*structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n
* The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it
means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*\n@SinceKotlin("1.1")\n@library("arrayEquals")\npublic actual infix fun ShortArray.contentEquals(other:
ShortArray): Boolean {\n    definedExternally\n}\n\n**\n * Returns `true` if the two specified arrays are
*structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n
* The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it
means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*\n@SinceKotlin("1.1")\n@library("arrayEquals")\npublic actual infix fun IntArray.contentEquals(other:
IntArray): Boolean {\n    definedExternally\n}\n\n**\n * Returns `true` if the two specified arrays are *structurally*
equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements
are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that
`NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*\n@SinceKotlin("1.1")\n@library("arrayEquals")\npublic actual infix fun LongArray.contentEquals(other:
LongArray): Boolean {\n    definedExternally\n}\n\n**\n * Returns `true` if the two specified arrays are
*structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n
* The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it
means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
*\n@SinceKotlin("1.1")\n@library("arrayEquals")\npublic actual infix fun FloatArray.contentEquals(other:
FloatArray): Boolean {\n    definedExternally\n}\n\n**\n * Returns `true` if the two specified arrays are

```

\*structurally\* equal to one another,\n \* i.e. contain the same number of the same elements in the same order.\n \* \n \* The elements are compared for equality with the [equals][Any.equals] function.\n \* For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n

```
*\n@SinceKotlin("1.1")\n@library("arrayEquals")\npublic actual infix fun DoubleArray.contentEquals(other: DoubleArray): Boolean {\n    definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
```

```
*\n@SinceKotlin("1.1")\n@library("arrayEquals")\npublic actual infix fun BooleanArray.contentEquals(other: BooleanArray): Boolean {\n    definedExternally\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the same order.\n * \n * The elements are compared for equality with the [equals][Any.equals] function.\n * For floating point numbers it means that `NaN` is equal to itself and `-0.0` is not equal to `0.0`.\n
```

```
*\n@SinceKotlin("1.1")\n@library("arrayEquals")\npublic actual infix fun CharArray.contentEquals(other: CharArray): Boolean {\n    definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n *\n@SinceKotlin("1.1")\n@library("arrayHashCode")\npublic actual fun <T> Array<out T>.contentHashCode(): Int {\n    definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n *\n@SinceKotlin("1.1")\n@library("arrayHashCode")\npublic actual fun ByteArray.contentHashCode(): Int {\n    definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n *\n@SinceKotlin("1.1")\n@library("arrayHashCode")\npublic actual fun ShortArray.contentHashCode(): Int {\n    definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n *\n@SinceKotlin("1.1")\n@library("arrayHashCode")\npublic actual fun IntArray.contentHashCode(): Int {\n    definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n *\n@SinceKotlin("1.1")\n@library("arrayHashCode")\npublic actual fun LongArray.contentHashCode(): Int {\n    definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n *\n@SinceKotlin("1.1")\n@library("arrayHashCode")\npublic actual fun FloatArray.contentHashCode(): Int {\n    definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n *\n@SinceKotlin("1.1")\n@library("arrayHashCode")\npublic actual fun DoubleArray.contentHashCode(): Int {\n    definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n *\n@SinceKotlin("1.1")\n@library("arrayHashCode")\npublic actual fun BooleanArray.contentHashCode(): Int {\n    definedExternally\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n *\n@SinceKotlin("1.1")\n@library("arrayHashCode")\npublic actual fun CharArray.contentHashCode(): Int {\n    definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n *\n * @sample\n samples.collections.Arrays.ContentOperations.contentToString\n
```

```
*\n@SinceKotlin("1.1")\n@library("arrayToString")\npublic actual fun <T> Array<out T>.contentToString(): String {\n    definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n *\n * @sample\n samples.collections.Arrays.ContentOperations.contentToString\n
```

```
*\n@SinceKotlin("1.1")\n@library("arrayToString")\npublic actual fun ByteArray.contentToString(): String {\n    definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n *\n * @sample\n samples.collections.Arrays.ContentOperations.contentToString\n
```

```
*\n@SinceKotlin("1.1")\n@library("arrayToString")\npublic actual fun ShortArray.contentToString(): String {\n    definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n *\n * @sample\n samples.collections.Arrays.ContentOperations.contentToString\n
```

```
*\n@SinceKotlin("1.1")\n@library("arrayToString")\npublic actual fun IntArray.contentToString(): String {\n    definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n *\n * @sample\n samples.collections.Arrays.ContentOperations.contentToString\n
```

```
*\n@SinceKotlin("1.1")\n@library("arrayToString")\npublic actual fun LongArray.contentToString(): String {\n
```

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definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.1")\n@library("arrayToString")\npublic actual fun FloatArray.contentToString(): String {\n
definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.1")\n@library("arrayToString")\npublic actual fun DoubleArray.contentToString(): String
{\n
definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.1")\n@library("arrayToString")\npublic actual fun BooleanArray.contentToString(): String
{\n
definedExternally\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is
[List].\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n
*\n@SinceKotlin("1.1")\n@library("arrayToString")\npublic actual fun CharArray.contentToString(): String {\n
definedExternally\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that
array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it
overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset
the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of
the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this
array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex]
or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws
IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified
[destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the
[destination] array.\n
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT
_ARGUMENTS")\npublic actual inline fun <T> Array<out T>.copyInto(destination: Array<T>, destinationOffset:
Int = 0, startIndex: Int = 0, endIndex: Int = size): Array<T> {\n
arrayCopy(this, destination, destinationOffset,
startIndex, endIndex)\n
return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination]
array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the
subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n *
@param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the
beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the
subrange to copy, size of this array by default.\n * \n * @throws IndexOutOfBoundsException or
[IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex
> endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array
starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices
range.\n * \n * @return the [destination] array.\n
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT
_ARGUMENTS")\npublic actual inline fun ByteArray.copyInto(destination: ByteArray, destinationOffset: Int = 0,
startIndex: Int = 0, endIndex: Int = size): ByteArray {\n
arrayCopy(this.unsafeCast<Array<Byte>>(),
destination.unsafeCast<Array<Byte>>(), destinationOffset, startIndex, endIndex)\n
return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that
array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it
overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset
the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of
the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this
array by default.\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or
[endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws
IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified
[destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the
[destination] array.\n

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*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("\nACTUAL_FUNCTION_WITH_DEFAULT\n_ARGUMENTS")\n\npublic actual inline fun ShortArray.copyInto(destination: ShortArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ShortArray {\n    arrayCopy(this.unsafeCast<Array<Short>>(),\n        destination.unsafeCast<Array<Short>>(), destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n\n*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("\nACTUAL_FUNCTION_WITH_DEFAULT\n_ARGUMENTS")\n\npublic actual inline fun IntArray.copyInto(destination: IntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): IntArray {\n    arrayCopy(this.unsafeCast<Array<Int>>(),\n        destination.unsafeCast<Array<Int>>(), destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n\n*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("\nACTUAL_FUNCTION_WITH_DEFAULT\n_ARGUMENTS")\n\npublic actual inline fun LongArray.copyInto(destination: LongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): LongArray {\n    arrayCopy(this.unsafeCast<Array<Long>>(),\n        destination.unsafeCast<Array<Long>>(), destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */\n\n*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("\nACTUAL_FUNCTION_WITH_DEFAULT\n_ARGUMENTS")\n\npublic actual inline fun FloatArray.copyInto(destination: FloatArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): FloatArray {\n    arrayCopy(this.unsafeCast<Array<Float>>(),\n        destination.unsafeCast<Array<Float>>(), destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * \n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * \n * @return the [destination] array.\n */

```

IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.  
@throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],  
or when that index is out of the [destination] array indices range.  
@return the [destination] array.

```
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual inline fun DoubleArray.copyInto(destination: DoubleArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): DoubleArray {\n    arrayCopy(this.unsafeCast<Array<Double>>(), destination.unsafeCast<Array<Double>>(), destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * @return the [destination] array.
```

```
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual inline fun BooleanArray.copyInto(destination: BooleanArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): BooleanArray {\n    arrayCopy(this.unsafeCast<Array<Boolean>>(), destination.unsafeCast<Array<Boolean>>(), destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n * @param destination the array to copy to.\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n * or when that index is out of the [destination] array indices range.\n * @return the [destination] array.
```

```
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\n@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\npublic actual inline fun CharArray.copyInto(destination: CharArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): CharArray {\n    arrayCopy(this.unsafeCast<Array<Char>>(), destination.unsafeCast<Array<Char>>(), destinationOffset, startIndex, endIndex)\n    return destination\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * @sample\n samples.collections.Arrays.CopyOfOperations.copyOf\n *\n@Suppress("ACTUAL_WITHOUT_EXPECT", "NOTHING_TO_INLINE")\npublic actual inline fun <T> Array<out T>.copyOf(): Array<T> {\n    return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * @sample\n samples.collections.Arrays.CopyOfOperations.copyOf\n *\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline fun ByteArray.copyOf(): ByteArray {\n    return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * @sample\n samples.collections.Arrays.CopyOfOperations.copyOf\n *\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline fun ShortArray.copyOf(): ShortArray {\n    return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * @sample\n samples.collections.Arrays.CopyOfOperations.copyOf\n *\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline fun IntArray.copyOf(): IntArray {\n    return this.asDynamic().slice()\n}\n\n/**\n * Returns new array which is a copy of the original array.\n * @sample\n samples.collections.Arrays.CopyOfOperations.copyOf
```

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*^/npublic actual fun LongArray.copyOf(): LongArray {^/n  return withType("LongArray",
this.asDynamic().slice())^/n}^/n/n/**^/n * Returns new array which is a copy of the original array.^/n * ^/n * @sample
samples.collections.Arrays.CopyOfOperations.copyOfOf^/n *^/n@Suppress("NOTHING_TO_INLINE")^/npublic
actual inline fun FloatArray.copyOf(): FloatArray {^/n  return this.asDynamic().slice())^/n}^/n/n/**^/n * Returns new
array which is a copy of the original array.^/n * ^/n * @sample
samples.collections.Arrays.CopyOfOperations.copyOfOf^/n *^/n@Suppress("NOTHING_TO_INLINE")^/npublic
actual inline fun DoubleArray.copyOf(): DoubleArray {^/n  return this.asDynamic().slice())^/n}^/n/n/**^/n * Returns
new array which is a copy of the original array.^/n * ^/n * @sample
samples.collections.Arrays.CopyOfOperations.copyOfOf^/n *^/npublic actual fun BooleanArray.copyOf():
BooleanArray {^/n  return withType("BooleanArray", this.asDynamic().slice())^/n}^/n/n/**^/n * Returns new array
which is a copy of the original array.^/n * ^/n * @sample samples.collections.Arrays.CopyOfOperations.copyOfOf^/n
*^/npublic actual fun CharArray.copyOf(): CharArray {^/n  return withType("CharArray",
this.asDynamic().slice())^/n}^/n/n/**^/n * Returns new array which is a copy of the original array, resized to the given
[newSize].^/n * The copy is either truncated or padded at the end with zero values if necessary.^/n * ^/n * - If [newSize]
is less than the size of the original array, the copy array is truncated to the [newSize].^/n * - If [newSize] is greater
than the size of the original array, the extra elements in the copy array are filled with zero values.^/n * ^/n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf^/n *^/npublic actual fun
ByteArray.copyOf(newSize: Int): ByteArray {^/n  require(newSize >= 0) { "Invalid new array size: $newSize."
}^/n  return fillFrom(this, ByteArray(newSize))^/n}^/n/n/**^/n * Returns new array which is a copy of the original
array, resized to the given [newSize].^/n * The copy is either truncated or padded at the end with zero values if
necessary.^/n * ^/n * - If [newSize] is less than the size of the original array, the copy array is truncated to the
[newSize].^/n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are
filled with zero values.^/n * ^/n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf^/n
*^/npublic actual fun ShortArray.copyOf(newSize: Int): ShortArray {^/n  require(newSize >= 0) { "Invalid new
array size: $newSize." }^/n  return fillFrom(this, ShortArray(newSize))^/n}^/n/n/**^/n * Returns new array which is a
copy of the original array, resized to the given [newSize].^/n * The copy is either truncated or padded at the end with
zero values if necessary.^/n * ^/n * - If [newSize] is less than the size of the original array, the copy array is truncated
to the [newSize].^/n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array
are filled with zero values.^/n * ^/n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf^/n *^/npublic actual fun
IntArray.copyOf(newSize: Int): IntArray {^/n  require(newSize >= 0) { "Invalid new array size: $newSize." }^/n
return fillFrom(this, IntArray(newSize))^/n}^/n/n/**^/n * Returns new array which is a copy of the original array,
resized to the given [newSize].^/n * The copy is either truncated or padded at the end with zero values if necessary.^/n
* ^/n * - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].^/n * - If
[newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero
values.^/n * ^/n * @sample samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf^/n *^/npublic actual
fun LongArray.copyOf(newSize: Int): LongArray {^/n  require(newSize >= 0) { "Invalid new array size:
$newSize." }^/n  return withType("LongArray", arrayCopyResize(this, newSize, 0L))^/n}^/n/n/**^/n * Returns new
array which is a copy of the original array, resized to the given [newSize].^/n * The copy is either truncated or padded
at the end with zero values if necessary.^/n * ^/n * - If [newSize] is less than the size of the original array, the copy
array is truncated to the [newSize].^/n * - If [newSize] is greater than the size of the original array, the extra elements
in the copy array are filled with zero values.^/n * ^/n * @sample
samples.collections.Arrays.CopyOfOperations.resizedPrimitiveCopyOf^/n *^/npublic actual fun
FloatArray.copyOf(newSize: Int): FloatArray {^/n  require(newSize >= 0) { "Invalid new array size: $newSize."
}^/n  return fillFrom(this, FloatArray(newSize))^/n}^/n/n/**^/n * Returns new array which is a copy of the original
array, resized to the given [newSize].^/n * The copy is either truncated or padded at the end with zero values if
necessary.^/n * ^/n * - If [newSize] is less than the size of the original array, the copy array is truncated to the
[newSize].^/n * - If [newSize] is greater than the size of the original array, the extra elements in the copy array are

```



range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive), must be in `0..array.size`\n \* @param toIndex the end of the range (exclusive), must be in `fromIndex..array.size`\n \*/\npublic actual fun FloatArray.copyOfRange(fromIndex: Int, toIndex: Int): FloatArray {\n

AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/\*\*\n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive), must be in `0..array.size`\n \* @param toIndex the end of the range (exclusive), must be in `fromIndex..array.size`\n \*/\npublic actual fun DoubleArray.copyOfRange(fromIndex: Int, toIndex: Int): DoubleArray {\n

AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n return this.asDynamic().slice(fromIndex, toIndex)\n}\n\n/\*\*\n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive), must be in `0..array.size`\n \* @param toIndex the end of the range (exclusive), must be in `fromIndex..array.size`\n \*/\npublic actual fun BooleanArray.copyOfRange(fromIndex: Int, toIndex: Int): BooleanArray {\n

AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n return withType(`BooleanArray`, this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/\*\*\n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive), must be in `0..array.size`\n \* @param toIndex the end of the range (exclusive), must be in `fromIndex..array.size`\n \*/\npublic actual fun CharArray.copyOfRange(fromIndex: Int, toIndex: Int): CharArray {\n

AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n return withType(`CharArray`, this.asDynamic().slice(fromIndex, toIndex))\n}\n\n/\*\*\n \* Fills this array or its subrange with the specified [element] value.\n \* \n \* @param fromIndex the start of the range (inclusive), 0 by default.\n \* @param toIndex the end of the range (exclusive), size of this array by default.\n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \*/\n\n@SinceKotlin("1.3")\n@Suppress("ACTUAL\_FUNCTION\_WITH\_DEFAULT\_ARGUMENTS")\npublic actual fun <T> Array<T>.fill(element: T, fromIndex: Int = 0, toIndex: Int = size): Unit {\n

AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/\*\*\n \* Fills this array or its subrange with the specified [element] value.\n \* \n \* @param fromIndex the start of the range (inclusive), 0 by default.\n \* @param toIndex the end of the range (exclusive), size of this array by default.\n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \*/\n\n@SinceKotlin("1.3")\n@Suppress("ACTUAL\_FUNCTION\_WITH\_DEFAULT\_ARGUMENTS")\npublic actual fun ByteArray.fill(element: Byte, fromIndex: Int = 0, toIndex: Int = size): Unit {\n

AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/\*\*\n \* Fills this array or its subrange with the specified [element] value.\n \* \n \* @param fromIndex the start of the range (inclusive), 0 by default.\n \* @param toIndex the end of the range (exclusive), size of this array by default.\n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \*/\n\n@SinceKotlin("1.3")\n@Suppress("ACTUAL\_FUNCTION\_WITH\_DEFAULT\_ARGUMENTS")\npublic actual fun ShortArray.fill(element: Short, fromIndex: Int = 0, toIndex: Int = size): Unit {\n

AbstractList.checkRangeIndexes(fromIndex, toIndex, size)\n this.asDynamic().fill(element, fromIndex, toIndex);\n}\n\n/\*\*\n \* Fills this array or its subrange with the specified [element] value.\n \* \n \* @param fromIndex the start of the range (inclusive), 0 by default.\n \* @param toIndex the end of the range (exclusive), size of this array by default.\n \* @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n \*/\n\n@SinceKotlin("1.3")\n@Suppress("ACTUAL\_FUNCTION\_WITH\_DEFAULT\_ARGUMENTS")\npublic

```

actual fun IntArray.fill(element: Int, fromIndex: Int = 0, toIndex: Int = size): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    this.asDynamic().fill(element, fromIndex, toIndex);
}
/**
 * Fills this array or its subrange with the specified [element] value.
 * @param fromIndex the start of the range (inclusive), 0 by default.
 * @param toIndex the end of the range (exclusive), size of this array by default.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
 */
@SinceKotlin("1.3")
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public actual fun LongArray.fill(element: Long, fromIndex: Int = 0, toIndex: Int = size): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    this.asDynamic().fill(element, fromIndex, toIndex);
}
/**
 * Fills this array or its subrange with the specified [element] value.
 * @param fromIndex the start of the range (inclusive), 0 by default.
 * @param toIndex the end of the range (exclusive), size of this array by default.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
 */
@SinceKotlin("1.3")
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public actual fun FloatArray.fill(element: Float, fromIndex: Int = 0, toIndex: Int = size): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    this.asDynamic().fill(element, fromIndex, toIndex);
}
/**
 * Fills this array or its subrange with the specified [element] value.
 * @param fromIndex the start of the range (inclusive), 0 by default.
 * @param toIndex the end of the range (exclusive), size of this array by default.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
 */
@SinceKotlin("1.3")
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public actual fun DoubleArray.fill(element: Double, fromIndex: Int = 0, toIndex: Int = size): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    this.asDynamic().fill(element, fromIndex, toIndex);
}
/**
 * Fills this array or its subrange with the specified [element] value.
 * @param fromIndex the start of the range (inclusive), 0 by default.
 * @param toIndex the end of the range (exclusive), size of this array by default.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
 */
@SinceKotlin("1.3")
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public actual fun BooleanArray.fill(element: Boolean, fromIndex: Int = 0, toIndex: Int = size): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    this.asDynamic().fill(element, fromIndex, toIndex);
}
/**
 * Fills this array or its subrange with the specified [element] value.
 * @param fromIndex the start of the range (inclusive), 0 by default.
 * @param toIndex the end of the range (exclusive), size of this array by default.
 * @throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.
 * @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].
 */
@SinceKotlin("1.3")
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
public actual fun CharArray.fill(element: Char, fromIndex: Int = 0, toIndex: Int = size): Unit {
    AbstractList.checkRangeIndexes(fromIndex, toIndex, size)
    this.asDynamic().fill(element, fromIndex, toIndex);
}
/**
 * Returns an array containing all elements of the original array and then the given [element].
 */
@Suppress("ACTUAL_WITHOUT_EXPECT", "NOTHING_TO_INLINE")
public actual inline operator fun <T> Array<out T>.plus(element: T): Array<T> {
    return this.asDynamic().concat(arrayOf(element));
}
/**
 * Returns an array containing all elements of the original array and then the given [element].
 */
@Suppress("NOTHING_TO_INLINE")
public actual inline operator fun ByteArray.plus(element: Byte): ByteArray {
    return plus(byteArrayOf(element));
}
/**
 * Returns an

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array containing all elements of the original array and then the given [element].\n

```
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun ShortArray.plus(element: Short): ShortArray {\n    return plus(shortArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun IntArray.plus(element: Int): IntArray {\n    return plus(intArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun LongArray.plus(element: Long): LongArray {\n    return plus(longArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun FloatArray.plus(element: Float): FloatArray {\n    return plus(floatArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun DoubleArray.plus(element: Double): DoubleArray {\n    return plus(doubleArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun BooleanArray.plus(element: Boolean): BooleanArray {\n    return plus(booleanArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given [element].\n */\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun CharArray.plus(element: Char): CharArray {\n    return plus(charArrayOf(element))\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@Suppress("ACTUAL_WITHOUT_EXPECT")\npublic actual operator fun <T> Array<out T>.plus(elements: Collection<T>): Array<T> {\n    return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@public actual operator fun ByteArray.plus(elements: Collection<Byte>): ByteArray {\n    return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@public actual operator fun ShortArray.plus(elements: Collection<Short>): ShortArray {\n    return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@public actual operator fun IntArray.plus(elements: Collection<Int>): IntArray {\n    return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@public actual operator fun LongArray.plus(elements: Collection<Long>): LongArray {\n    return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@public actual operator fun FloatArray.plus(elements: Collection<Float>): FloatArray {\n    return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@public actual operator fun DoubleArray.plus(elements: Collection<Double>): DoubleArray {\n    return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@public actual operator fun BooleanArray.plus(elements: Collection<Boolean>): BooleanArray {\n    return arrayPlusCollection(this, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] collection.\n */\n@public actual operator fun CharArray.plus(elements: Collection<Char>): CharArray {\n    return fillFromCollection(this.copyOf(size + elements.size), this.size, elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */\n@Suppress("ACTUAL_WITHOUT_EXPECT", "NOTHING_TO_INLINE")\npublic actual inline operator fun <T> Array<out T>.plus(elements: Array<out T>): Array<T> {\n    return this.asDynamic().concat(elements)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n */
```

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*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun ByteArray.plus(elements:
ByteArray): ByteArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing
all elements of the original array and then all elements of the given [elements] array.\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun ShortArray.plus(elements:
ShortArray): ShortArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array
containing all elements of the original array and then all elements of the given [elements] array.\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun IntArray.plus(elements: IntArray):
IntArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing all elements of
the original array and then all elements of the given [elements] array.\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun LongArray.plus(elements:
LongArray): LongArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array
containing all elements of the original array and then all elements of the given [elements] array.\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun FloatArray.plus(elements:
FloatArray): FloatArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing
all elements of the original array and then all elements of the given [elements] array.\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun DoubleArray.plus(elements:
DoubleArray): DoubleArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array
containing all elements of the original array and then all elements of the given [elements] array.\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun BooleanArray.plus(elements:
BooleanArray): BooleanArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array
containing all elements of the original array and then all elements of the given [elements] array.\n
*\n@Suppress("NOTHING_TO_INLINE")\npublic actual inline operator fun CharArray.plus(elements:
CharArray): CharArray {\n    return primitiveArrayConcat(this, elements)\n}\n\n/**\n * Returns an array containing
all elements of the original array and then the given [element].\n
*\n@Suppress("ACTUAL_WITHOUT_EXPECT", "NOTHING_TO_INLINE")\npublic actual inline fun <T>
Array<out T>.plusElement(element: T): Array<T> {\n    return
this.asDynamic().concat(arrayOf(element))\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n *\n@library("primitiveArraySort")\npublic actual fun
IntArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n *\npublic actual fun LongArray.sort(): Unit {\n    if (size > 1) sort {
a: Long, b: Long -> a.compareTo(b) }\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n *\n@library("primitiveArraySort")\npublic actual fun
ByteArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n *\n@library("primitiveArraySort")\npublic actual fun
ShortArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n *\n@library("primitiveArraySort")\npublic actual fun
DoubleArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n *\n@library("primitiveArraySort")\npublic actual fun
FloatArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n *\n@library("primitiveArraySort")\npublic actual fun
CharArray.sort(): Unit {\n    definedExternally\n}\n\n/**\n * Sorts the array in-place according to the natural order
of its elements.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other
after sorting.\n * \n * @sample samples.collections.Arrays.Sorting.sortArrayOfComparable\n *\npublic actual fun
<T : Comparable<T>> Array<out T>.sort(): Unit {\n    if (size > 1) sortArray(this)\n}\n\n/**\n * Sorts the array in-
place according to the order specified by the given [comparison] function.\n * \n * The sort is _stable_. It means that
equal elements preserve their order relative to each other after sorting.\n *\npublic fun <T> Array<out
T>.sort(comparison: (a: T, b: T) -> Int): Unit {\n    if (size > 1) sortArrayWith(this, comparison)\n}\n\n/**\n * Sorts
the array in-place according to the order specified by the given [comparison] function.\n

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*@\n@kotlin.internal.InlineOnly\npublic inline fun ByteArray.sort(noinline comparison: (a: Byte, b: Byte) -> Int):
Unit {\n  asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by
the given [comparison] function.\n *@\n@kotlin.internal.InlineOnly\npublic inline fun ShortArray.sort(noinline
comparison: (a: Short, b: Short) -> Int): Unit {\n  asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-
place according to the order specified by the given [comparison] function.\n *@\n@kotlin.internal.InlineOnly\npublic
inline fun IntArray.sort(noinline comparison: (a: Int, b: Int) -> Int): Unit {\n
asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given
[comparison] function.\n *@\n@kotlin.internal.InlineOnly\npublic inline fun LongArray.sort(noinline comparison:
(a: Long, b: Long) -> Int): Unit {\n  asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according
to the order specified by the given [comparison] function.\n *@\n@kotlin.internal.InlineOnly\npublic inline fun
FloatArray.sort(noinline comparison: (a: Float, b: Float) -> Int): Unit {\n
asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given
[comparison] function.\n *@\n@kotlin.internal.InlineOnly\npublic inline fun DoubleArray.sort(noinline comparison:
(a: Double, b: Double) -> Int): Unit {\n  asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place
according to the order specified by the given [comparison] function.\n *@\n@kotlin.internal.InlineOnly\npublic
inline fun CharArray.sort(noinline comparison: (a: Char, b: Char) -> Int): Unit {\n
asDynamic().sort(comparison)\n}\n\n/**\n * Sorts the array in-place according to the order specified by the given
[comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other
after sorting.\n *@\npublic actual fun <T> Array<out T>.sortWith(comparator: Comparator<in T>): Unit {\n  if
(size > 1) sortArrayWith(this, comparator)\n}\n\n/**\n * Returns a typed object array containing all of the
elements of this primitive array.\n *@\npublic actual fun ByteArray.toTypedArray(): Array<Byte> {\n  return
js("\[\]").slice.call(this)\n}\n\n/**\n * Returns a typed object array containing all of the elements of this primitive
array.\n *@\npublic actual fun ShortArray.toTypedArray(): Array<Short> {\n  return
js("\[\]").slice.call(this)\n}\n\n/**\n * Returns a typed object array containing all of the elements of this primitive
array.\n *@\npublic actual fun IntArray.toTypedArray(): Array<Int> {\n  return js("\[\]").slice.call(this)\n}\n\n/**\n
* Returns a typed object array containing all of the elements of this primitive array.\n *@\npublic actual fun
LongArray.toTypedArray(): Array<Long> {\n  return js("\[\]").slice.call(this)\n}\n\n/**\n * Returns a typed
object array containing all of the elements of this primitive array.\n *@\npublic actual fun
FloatArray.toTypedArray(): Array<Float> {\n  return js("\[\]").slice.call(this)\n}\n\n/**\n * Returns a typed
object array containing all of the elements of this primitive array.\n *@\npublic actual fun
DoubleArray.toTypedArray(): Array<Double> {\n  return js("\[\]").slice.call(this)\n}\n\n/**\n * Returns a typed
object array containing all of the elements of this primitive array.\n *@\npublic actual fun
BooleanArray.toTypedArray(): Array<Boolean> {\n  return js("\[\]").slice.call(this)\n}\n\n/**\n * Returns a
typed object array containing all of the elements of this primitive array.\n *@\npublic actual fun
CharArray.toTypedArray(): Array<Char> {\n  return Array(size) { index -> this[index] }\n}\n\n"/**\r\n *
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is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n
*/\r\n@file:kotlin.jvm.JvmName("ComparisonsKt")\r\n@file:kotlin.jvm.JvmMultifileClass\r\n\r\npackage
kotlin.comparisons\r\n\r\n/**\r\n * Compares two values using the specified functions [selectors] to calculate the
result of the comparison.\r\n * The functions are called sequentially, receive the given values [a] and [b] and return
[Comparable]\r\n * objects. As soon as the [Comparable] instances returned by a function for [a] and [b] values do
not\r\n * compare as equal, the result of that comparison is returned.\r\n * \r\n * @sample
samples.comparisons.Comparisons.compareValuesByWithSelectors\r\n *@\npublic fun <T> compareValuesBy(a:
T, b: T, vararg selectors: (T) -> Comparable<*>?): Int {\r\n  require(selectors.size > 0)\r\n  return
compareValuesByImpl(a, b, selectors)\r\n}\r\n\r\nprivate fun <T> compareValuesByImpl(a: T, b: T, selectors:
Array<out (T) -> Comparable<*>?): Int {\r\n  for (fn in selectors) {\r\n    val v1 = fn(a)\r\n    val v2 =
fn(b)\r\n    val diff = compareValues(v1, v2)\r\n    if (diff != 0) return diff\r\n  }\r\n  return
0\r\n}\r\n\r\n/**\r\n * Compares two values using the specified [selector] function to calculate the result of the

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comparison.  
 \* The function is applied to the given values [a] and [b] and return [Comparable] objects.  
 \* The result of comparison of these [Comparable] instances is returned.  
 \* @sample  
 samples.comparisons.Comparisons.compareValuesByWithSingleSelector  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun <T> compareValuesBy(a: T, b: T, selector: (T) -> Comparable<\*>?): Int {  
 return compareValues(selector(a), selector(b))  
 }  
 \* Compares two values using the specified [selector] function to calculate the result of the comparison.  
 \* The function is applied to the given values [a] and [b] and return objects of type K which are then being  
 \* compared with the given [comparator].  
 \* @sample samples.comparisons.Comparisons.compareValuesByWithComparator  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun <T, K> compareValuesBy(a: T, b: T, comparator: Comparator<in K>, selector: (T) -> K): Int {  
 return comparator.compare(selector(a), selector(b))  
 }  
 Not so useful without type inference for receiver of expression  
 compareValuesWith(v1, v2, compareBy { it.prop1 } thenByDescending { it.prop2 })  
 \* Compares two values using the specified [comparator].  
 \* @sample  
 samples.comparisons.Comparisons.compareValuesWith  
 \*  
 @Suppress("NOTHING\_TO\_INLINE")  
 public inline fun <T> compareValuesWith(a: T, b: T, comparator: Comparator<T>): Int = comparator.compare(a, b)  
 \* Compares two nullable [Comparable] values. Null is considered less than any value.  
 \* @sample  
 samples.comparisons.Comparisons.compareValues  
 \*  
 public fun <T : Comparable<\*>> compareValues(a: T?, b: T?): Int {  
 if (a === b) return 0  
 if (a == null) return -1  
 if (b == null) return 1  
 }  
 @Suppress("UNCHECKED\_CAST")  
 return (a as Comparable<Any>).compareTo(b)  
 }  
 \* Creates a comparator using the sequence of functions to calculate a result of comparison.  
 \* The functions are called sequentially, receive the given values `a` and `b` and return [Comparable] objects. As soon as the [Comparable] instances returned by a function for `a` and `b` values do not  
 \* compare as equal, the result of that comparison is returned from the [Comparator].  
 \* @sample  
 samples.comparisons.Comparisons.compareByWithSelectors  
 \*  
 public fun <T> compareBy(vararg selectors: (T) -> Comparable<\*>?): Comparator<T> {  
 require(selectors.size > 0)  
 return Comparator { a, b -> compareValuesByImpl(a, b, selectors) }  
 }  
 \* Creates a comparator using the function to transform value to a [Comparable] instance for comparison.  
 \* @sample  
 samples.comparisons.Comparisons.compareByWithSingleSelector  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun <T> compareBy(crossinline selector: (T) -> Comparable<\*>?): Comparator<T> =  
 Comparator { a, b -> compareValuesBy(a, b, selector) }  
 \* Creates a comparator using the [selector] function to transform values being compared and then applying  
 \* the specified [comparator] to compare transformed values.  
 \* @sample samples.comparisons.Comparisons.compareByWithComparator  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun <T, K> compareBy(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =  
 Comparator { a, b -> compareValuesBy(a, b, comparator, selector) }  
 \* Creates a descending comparator using the function to transform value to a [Comparable] instance for comparison.  
 \* @sample  
 samples.comparisons.Comparisons.compareByDescendingWithSingleSelector  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun <T> compareByDescending(crossinline selector: (T) -> Comparable<\*>?): Comparator<T> =  
 Comparator { a, b -> compareValuesBy(b, a, selector) }  
 \* Creates a descending comparator using the [selector] function to transform values being compared and then applying  
 \* the specified [comparator] to compare transformed values.  
 \* Note that an order of [comparator] is reversed by this wrapper.  
 \* @sample  
 samples.comparisons.Comparisons.compareByDescendingWithComparator  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun <T, K> compareByDescending(comparator: Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =  
 Comparator { a, b -> compareValuesBy(b, a, comparator, selector) }  
 \* Creates a comparator comparing values after the primary comparator defined them equal. It uses  
 \* the function to transform value to a [Comparable] instance for comparison.  
 \* @sample samples.comparisons.Comparisons.thenBy  
 \*  
 @kotlin.internal.InlineOnly  
 public inline fun <T> Comparator<T>.thenBy(crossinline selector: (T) -> Comparable<\*>?): Comparator<T> =  
 Comparator { a, b -

```

>\r\n    val previousCompare = this@thenBy.compare(a, b)\r\n    if (previousCompare != 0) previousCompare
else compareValuesBy(a, b, selector)\r\n    }\r\n\r\n/**\r\n * Creates a comparator comparing values after the
primary comparator defined them equal. It uses\r\n * the [selector] function to transform values and then compares
them with the given [comparator].\r\n * \r\n * @sample
samples.comparisons.Comparisons.thenByWithComparator\r\n * \r\n@kotlin.internal.InlineOnly\r\npublic inline
fun <T, K> Comparator<T>.thenBy(comparator: Comparator<in K>, crossinline selector: (T) -> K):
Comparator<T> =\r\n    Comparator { a, b ->\r\n        val previousCompare = this@thenBy.compare(a, b)\r\n        if
(previousCompare != 0) previousCompare else compareValuesBy(a, b, comparator, selector)\r\n    }\r\n\r\n/**\r\n *
Creates a descending comparator using the primary comparator and\r\n * the function to transform value to a
[Comparable] instance for comparison.\r\n * \r\n * @sample
samples.comparisons.Comparisons.thenByDescending\r\n * \r\n@kotlin.internal.InlineOnly\r\npublic inline fun
<T> Comparator<T>.thenByDescending(crossinline selector: (T) -> Comparable<*>?): Comparator<T> =\r\n
Comparator { a, b ->\r\n    val previousCompare = this@thenByDescending.compare(a, b)\r\n    if
(previousCompare != 0) previousCompare else compareValuesBy(b, a, selector)\r\n    }\r\n\r\n/**\r\n * Creates a
descending comparator comparing values after the primary comparator defined them equal. It uses\r\n * the
[selector] function to transform values and then compares them with the given [comparator].\r\n * \r\n * @sample
samples.comparisons.Comparisons.thenByDescendingWithComparator\r\n * \r\n@kotlin.internal.InlineOnly\r\npublic inline fun
<T, K> Comparator<T>.thenByDescending(comparator:
Comparator<in K>, crossinline selector: (T) -> K): Comparator<T> =\r\n    Comparator { a, b ->\r\n        val
previousCompare = this@thenByDescending.compare(a, b)\r\n        if (previousCompare != 0) previousCompare
else compareValuesBy(b, a, comparator, selector)\r\n    }\r\n\r\n\r\n/**\r\n * Creates a comparator using the primary
comparator and function to calculate a result of comparison.\r\n * \r\n * @sample
samples.comparisons.Comparisons.thenComparator\r\n * \r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T>
Comparator<T>.thenComparator(crossinline comparison: (a: T, b: T) -> Int): Comparator<T> =\r\n    Comparator {
a, b ->\r\n        val previousCompare = this@thenComparator.compare(a, b)\r\n        if (previousCompare != 0)
previousCompare else comparison(a, b)\r\n    }\r\n\r\n/**\r\n * Combines this comparator and the given
[comparator] such that the latter is applied only\r\n * when the former considered values equal.\r\n * \r\n * @sample
samples.comparisons.Comparisons.then\r\n * \r\npublic infix fun <T> Comparator<T>.then(comparator:
Comparator<in T>): Comparator<T> =\r\n    Comparator { a, b ->\r\n        val previousCompare =
this@then.compare(a, b)\r\n        if (previousCompare != 0) previousCompare else comparator.compare(a, b)\r\n
    }\r\n\r\n/**\r\n * Combines this comparator and the given [comparator] such that the latter is applied only\r\n *
when the former considered values equal.\r\n * \r\n * @sample
samples.comparisons.Comparisons.thenDescending\r\n * \r\npublic infix fun <T>
Comparator<T>.thenDescending(comparator: Comparator<in T>): Comparator<T> =\r\n    Comparator<T> { a, b -
>\r\n        val previousCompare = this@thenDescending.compare(a, b)\r\n        if (previousCompare != 0)
previousCompare else comparator.compare(b, a)\r\n    }\r\n\r\n// Not so useful without type inference for receiver of
expression\r\n/**\r\n * Extends the given [comparator] of non-nullable values to a comparator of nullable values\r\n *
considering `null` value less than any other value.\r\n * \r\n * @sample
samples.comparisons.Comparisons.nullsFirstLastWithComparator\r\n * \r\npublic fun <T : Any>
nullsFirst(comparator: Comparator<in T>): Comparator<T?> =\r\n    Comparator { a, b ->\r\n        when {\r\n
a === b -> 0\r\n        a == null -> -1\r\n        b == null -> 1\r\n        else -> comparator.compare(a, b)\r\n
        }\r\n    }\r\n\r\n/**\r\n * Provides a comparator of nullable [Comparable] values\r\n * considering `null` value less
than any other value.\r\n * \r\n * @sample samples.comparisons.Comparisons.nullsFirstLastComparator\r\n *
\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T : Comparable<T>> nullsFirst(): Comparator<T?> =
nullsFirst(naturalOrder())\r\n\r\n/**\r\n * Extends the given [comparator] of non-nullable values to a comparator of
nullable values\r\n * considering `null` value greater than any other value.\r\n * \r\n * @sample
samples.comparisons.Comparisons.nullsFirstLastWithComparator\r\n * \r\npublic fun <T : Any>
nullsLast(comparator: Comparator<in T>): Comparator<T?> =\r\n    Comparator { a, b ->\r\n        when {\r\n

```

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a === b -> 0\r\n      a == null -> 1\r\n      b == null -> -1\r\n      else -> comparator.compare(a, b)\r\n
}\r\n  }\r\n\r\n**\r\n * Provides a comparator of nullable [Comparable] values\r\n * considering `null` value
greater than any other value.\r\n * @sample samples.comparisons.Comparisons.nullsFirstLastComparator\r\n
*/\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T : Comparable<T>> nullsLast(): Comparator<T?> =
nullsLast(naturalOrder())\r\n\r\n**\r\n * Returns a comparator that compares [Comparable] objects in natural
order.\r\n * @sample samples.comparisons.Comparisons.naturalOrderComparator\r\n * \r\npublic fun <T :
Comparable<T>> naturalOrder(): Comparator<T> = @Suppress("UNCHECKED_CAST")
(NaturalOrderComparator as Comparator<T>)\r\n\r\n**\r\n * Returns a comparator that compares [Comparable]
objects in reversed natural order.\r\n * @sample
samples.comparisons.Comparisons.nullsFirstLastWithComparator\r\n * \r\npublic fun <T : Comparable<T>>
reverseOrder(): Comparator<T> = @Suppress("UNCHECKED_CAST") (ReverseOrderComparator as
Comparator<T>)\r\n\r\n**\r\n * Returns a comparator that imposes the reverse ordering of this comparator.\r\n
*\r\n * @sample samples.comparisons.Comparisons.reversed\r\n * \r\npublic fun <T> Comparator<T>.reversed():
Comparator<T> = when (this) {\r\n    is ReversedComparator -> this.comparator\r\n    NaturalOrderComparator ->
@Suppress("UNCHECKED_CAST") (ReverseOrderComparator as Comparator<T>)\r\n
ReverseOrderComparator -> @Suppress("UNCHECKED_CAST") (NaturalOrderComparator as
Comparator<T>)\r\n    else -> ReversedComparator(this)\r\n}\r\n\r\n\r\nprivate class
ReversedComparator<T>(public val comparator: Comparator<T>) : Comparator<T> {\r\n    override fun compare(a:
T, b: T): Int = comparator.compare(b, a)\r\n    @Suppress("VIRTUAL_MEMBER_HIDDEN")\r\n    fun
reversed(): Comparator<T> = comparator\r\n}\r\n\r\nprivate object NaturalOrderComparator :
Comparator<Comparable<Any>> {\r\n    override fun compare(a: Comparable<Any>, b: Comparable<Any>): Int =
a.compareTo(b)\r\n    @Suppress("VIRTUAL_MEMBER_HIDDEN")\r\n    fun reversed():
Comparator<Comparable<Any>> = ReverseOrderComparator\r\n}\r\n\r\nprivate object ReverseOrderComparator :
Comparator<Comparable<Any>> {\r\n    override fun compare(a: Comparable<Any>, b: Comparable<Any>): Int =
b.compareTo(a)\r\n    @Suppress("VIRTUAL_MEMBER_HIDDEN")\r\n    fun reversed():
Comparator<Comparable<Any>> = NaturalOrderComparator\r\n}\r\n", "/*\r\n * Copyright 2010-2018 JetBrains
s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin\r\n\r\n\r\npublic actual
interface Comparator<T> {\r\n    @JsName("compare")\r\n    actual fun compare(a: T, b: T): Int\r\n}\r\n\r\npublic
actual inline fun <T> Comparator(crossinline comparison: (a: T, b: T) -> Int): Comparator<T> = object :
Comparator<T> {\r\n    override fun compare(a: T, b: T): Int = comparison(a, b)\r\n}\r\n", "/*\r\n * Copyright 2010-
2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by
the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n
*/\r\n\r\n@file:kotlin.jvm.JvmMultifileClass\r\n@file:kotlin.jvm.JvmName("StandardKt")\r\n\r\npackage
kotlin\r\n\r\n\r\nimport kotlin.contracts.*\r\n\r\n**\r\n * An exception is thrown to indicate that a method body remains
to be implemented.\r\n * \r\npublic class NotImplementedError(message: String = "An operation is not
implemented.") : Error(message)\r\n\r\n**\r\n * Always throws [NotImplementedError] stating that operation is
not implemented.\r\n * \r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun TODO(): Nothing = throw
NotImplementedError()\r\n\r\n**\r\n * Always throws [NotImplementedError] stating that operation is not
implemented.\r\n * \r\n * @param reason a string explaining why the implementation is missing.\r\n
*/\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun TODO(reason: String): Nothing = throw
NotImplementedError("An operation is not implemented: $reason")\r\n\r\n\r\n\r\n**\r\n * Calls the specified
function [block] and returns its result.\r\n * \r\n * For detailed usage information see the documentation for [scope
functions](https://kotlinlang.org/docs/reference/scope-functions.html#run).\r\n
*/\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <R> run(block: () -> R): R {\r\n    contract {\r\n
callsInPlace(block, InvocationKind.EXACTLY_ONCE)\r\n    }\r\n    return block()\r\n}\r\n\r\n**\r\n * Calls the
specified function [block] with `this` value as its receiver and returns its result.\r\n * \r\n * For detailed usage
information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-

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functions.html#run).\r\n *@\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T, R> T.run(block: T.() -> R): R
{\r\n contract {\r\n callsInPlace(block, InvocationKind.EXACTLY_ONCE)\r\n }}\r\n return
block()\r\n}\r\n\r\n/**\r\n * Calls the specified function [block] with the given [receiver] as its receiver and returns
its result.\r\n * For detailed usage information see the documentation for [scope
functions](https://kotlinlang.org/docs/reference/scope-functions.html#with).\r\n
*\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T, R> with(receiver: T, block: T.() -> R): R {\r\n contract
{\r\n callsInPlace(block, InvocationKind.EXACTLY_ONCE)\r\n }}\r\n return
receiver.block()\r\n}\r\n\r\n/**\r\n * Calls the specified function [block] with `this` value as its receiver and returns
`this` value.\r\n * For detailed usage information see the documentation for [scope
functions](https://kotlinlang.org/docs/reference/scope-functions.html#apply).\r\n
*\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T> T.apply(block: T.() -> Unit): T {\r\n contract {\r\n
callsInPlace(block, InvocationKind.EXACTLY_ONCE)\r\n }}\r\n block()\r\n return this\r\n}\r\n\r\n/**\r\n * Calls the specified function [block] with `this` value as its argument and returns `this` value.\r\n * For detailed
usage information see the documentation for [scope functions](https://kotlinlang.org/docs/reference/scope-
functions.html#also).\r\n
*\r\n@kotlin.internal.InlineOnly\r\n@SinceKotlin("1.1")\r\npublic inline fun <T>
T.also(block: (T) -> Unit): T {\r\n contract {\r\n callsInPlace(block, InvocationKind.EXACTLY_ONCE)\r\n
}}\r\n block(this)\r\n return this\r\n}\r\n\r\n/**\r\n * Calls the specified function [block] with `this` value as its
argument and returns its result.\r\n * For detailed usage information see the documentation for [scope
functions](https://kotlinlang.org/docs/reference/scope-functions.html#let).\r\n
*\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T, R> T.let(block: (T) -> R): R {\r\n contract {\r\n
callsInPlace(block, InvocationKind.EXACTLY_ONCE)\r\n }}\r\n return block(this)\r\n}\r\n\r\n/**\r\n * Returns
`this` value if it satisfies the given [predicate] or `null`, if it doesn't.\r\n
*\r\n@kotlin.internal.InlineOnly\r\n@SinceKotlin("1.1")\r\npublic inline fun <T> T.takeIf(predicate: (T) ->
Boolean): T? {\r\n contract {\r\n callsInPlace(predicate, InvocationKind.EXACTLY_ONCE)\r\n }}\r\n
return if (predicate(this)) this else null\r\n}\r\n\r\n/**\r\n * Returns `this` value if it _does not_ satisfy the given
[predicate] or `null`, if it does.\r\n
*\r\n@kotlin.internal.InlineOnly\r\n@SinceKotlin("1.1")\r\npublic inline fun
<T> T.takeUnless(predicate: (T) -> Boolean): T? {\r\n contract {\r\n callsInPlace(predicate,
InvocationKind.EXACTLY_ONCE)\r\n }}\r\n return if (!predicate(this)) this else null\r\n}\r\n\r\n/**\r\n * Executes the given function [action] specified number of [times].\r\n * A zero-based index of current iteration
is passed as a parameter to [action].\r\n * @sample samples.misc.ControlFlow.repeat\r\n
*\r\n@kotlin.internal.InlineOnly\r\npublic inline fun repeat(times: Int, action: (Int) -> Unit) {\r\n contract {
\r\n callsInPlace(action) }\r\n\r\n for (index in 0 until times) {\r\n action(index)\r\n }}\r\n\r\n", /*\r\n * Copyright
2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\npackage
kotlin.comparisons\r\n\r\n/\r\n\r\n NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\r\n\r\n See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\r\n\r\n\r\nimport kotlin.js.*\r\n\r\n/**\r\n * Returns the greater
of two values.\r\n * If values are equal, returns the first one.\r\n
*\r\n@SinceKotlin("1.1")\r\npublic actual fun <T :
Comparable<T>> maxOf(a: T, b: T): T {\r\n return if (a >= b) a else b\r\n}\r\n\r\n/**\r\n * Returns the greater of two
values.\r\n
*\r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\n@Suppress("DEPRECATION_ERROR")\r\npublic actual
inline fun maxOf(a: Byte, b: Byte): Byte {\r\n return Math.max(a.toInt(), b.toInt()).unsafeCast<Byte>()\r\n}\r\n\r\n/**\r\n * Returns the greater of two values.\r\n
*\r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\n@Suppress("DEPRECATION_ERROR")\r\npublic actual
inline fun maxOf(a: Short, b: Short): Short {\r\n return Math.max(a.toInt(),
b.toInt()).unsafeCast<Short>()\r\n}\r\n\r\n/**\r\n * Returns the greater of two values.\r\n
*\r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\n@Suppress("DEPRECATION_ERROR")\r\npublic actual
inline fun maxOf(a: Int, b: Int): Int {\r\n return Math.max(a, b)\r\n}\r\n\r\n/**\r\n * Returns the greater of two values.\r\n
*\r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\n@Suppress("DEPRECATION_ERROR", "NOTHING_TO_INLINE")\r\npublic actual

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```

inline fun maxOf(a: Long, b: Long): Long {
    return if (a >= b) a else b
}
// Returns the greater of two values.

@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
@Suppress("DEPRECATION_ERROR")
public actual
inline fun maxOf(a: Float, b: Float): Float {
    return Math.max(a, b)
}
// Returns the greater of two values.

@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
@Suppress("DEPRECATION_ERROR")
public actual
inline fun maxOf(a: Double, b: Double): Double {
    return Math.max(a, b)
}
// Returns the greater of three values.
@SinceKotlin("1.1")
public actual fun <T : Comparable<T>> maxOf(a: T, b: T, c: T): T {
    return maxOf(a, maxOf(b, c))
}
// Returns the greater of three values.

@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
@Suppress("DEPRECATION_ERROR")
public actual
inline fun maxOf(a: Byte, b: Byte, c: Byte): Byte {
    return Math.max(a.toInt(), b.toInt(),
c.toInt()).unsafeCast<Byte>()
}
// Returns the greater of three values.

@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
@Suppress("DEPRECATION_ERROR")
public actual
inline fun maxOf(a: Short, b: Short, c: Short): Short {
    return Math.max(a.toInt(), b.toInt(),
c.toInt()).unsafeCast<Short>()
}
// Returns the greater of three values.

@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
@Suppress("DEPRECATION_ERROR")
public actual
inline fun maxOf(a: Int, b: Int, c: Int): Int {
    return Math.max(a, b, c)
}
// Returns the greater of three values.
@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
public actual inline fun maxOf(a: Long, b: Long,
c: Long): Long {
    return maxOf(a, maxOf(b, c))
}
// Returns the greater of three values.

@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
@Suppress("DEPRECATION_ERROR")
public actual
inline fun maxOf(a: Float, b: Float, c: Float): Float {
    return Math.max(a, b, c)
}
// Returns the greater of three values.

@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
@Suppress("DEPRECATION_ERROR")
public actual
inline fun maxOf(a: Double, b: Double, c: Double): Double {
    return Math.max(a, b, c)
}
// Returns the smaller of two values.
// If values are equal, returns the first one.
@SinceKotlin("1.1")
public actual fun
<T : Comparable<T>> minOf(a: T, b: T): T {
    return if (a <= b) a else b
}
// Returns the smaller of two values.

@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
@Suppress("DEPRECATION_ERROR")
public actual
inline fun minOf(a: Byte, b: Byte): Byte {
    return Math.min(a.toInt(), b.toInt()).unsafeCast<Byte>()
}
// Returns the smaller of two values.

@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
@Suppress("DEPRECATION_ERROR")
public actual
inline fun minOf(a: Short, b: Short): Short {
    return Math.min(a.toInt(),
b.toInt()).unsafeCast<Short>()
}
// Returns the smaller of two values.

@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
@Suppress("DEPRECATION_ERROR")
public actual
inline fun minOf(a: Int, b: Int): Int {
    return Math.min(a, b)
}
// Returns the smaller of two values.

@SinceKotlin("1.1")
@Suppress("DEPRECATION_ERROR", "NOTHING_TO_INLINE")
public actual
inline fun minOf(a: Long, b: Long): Long {
    return if (a <= b) a else b
}
// Returns the smaller of two values.

@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
@Suppress("DEPRECATION_ERROR")
public actual
inline fun minOf(a: Float, b: Float): Float {
    return Math.min(a, b)
}
// Returns the smaller of two values.

@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
@Suppress("DEPRECATION_ERROR")
public actual
inline fun minOf(a: Double, b: Double): Double {
    return Math.min(a, b)
}
// Returns the smaller of three values.
@SinceKotlin("1.1")
public actual fun <T : Comparable<T>> minOf(a: T, b: T, c: T): T {
    return minOf(a, minOf(b, c))
}
// Returns the smaller of three values.

@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
@Suppress("DEPRECATION_ERROR")
public actual
inline fun minOf(a: Byte, b: Byte, c: Byte): Byte {
    return Math.min(a.toInt(), b.toInt(),
c.toInt()).unsafeCast<Byte>()
}
// Returns the smaller of three values.

```

```

*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\n@Suppress("DEPRECATION_ERROR")\npublic actual
inline fun minOf(a: Short, b: Short, c: Short): Short {\n    return Math.min(a.toInt(), b.toInt(),
c.toInt()).unsafeCast<Short>()\n}\n\n/**\n * Returns the smaller of three values.\n
*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\n@Suppress("DEPRECATION_ERROR")\npublic actual
inline fun minOf(a: Int, b: Int, c: Int): Int {\n    return Math.min(a, b, c)\n}\n\n/**\n * Returns the smaller of three
values.\n
*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\n@Suppress("DEPRECATION_ERROR")\npublic actual inline fun minOf(a: Long, b: Long,
c: Long): Long {\n    return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three values.\n
*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\n@Suppress("DEPRECATION_ERROR")\npublic actual
inline fun minOf(a: Float, b: Float, c: Float): Float {\n    return Math.min(a, b, c)\n}\n\n/**\n * Returns the smaller
of three values.\n
*\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\n@Suppress("DEPRECATION_ERROR")\npublic actual
inline fun minOf(a: Double, b: Double, c: Double): Double {\n    return Math.min(a, b, c)\n}\n\n"/*\n * Copyright
2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed
by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("CollectionsKt")\n\npackage
kotlin.collections\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\nimport
kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns 1st *element* from the collection.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component1(): T {\n    return
get(0)\n}\n\n/**\n * Returns 2nd *element* from the collection.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component2(): T {\n    return get(1)\n}\n\n/**\n * Returns 3rd *element* from the
collection.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component3(): T {\n    return
get(2)\n}\n\n/**\n * Returns 4th *element* from the collection.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component4(): T {\n    return get(3)\n}\n\n/**\n * Returns 5th *element* from the
collection.\n
*\n@kotlin.internal.InlineOnly\npublic inline operator fun <T> List<T>.component5(): T {\n    return
get(4)\n}\n\n/**\n * Returns `true` if [element] is found in the collection.\n
*\npublic operator fun
<@kotlin.internal.OnlyInputTypes T> Iterable<T>.contains(element: T): Boolean {\n    if (this is Collection)\n    return contains(element)\n    return indexOf(element) >= 0\n}\n\n/**\n * Returns an element at the given [index] or
throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this collection.\n
*\n * @sample
samples.collections.Collections.Elements.elementAt\n
*\npublic fun <T> Iterable<T>.elementAt(index: Int): T {\n    if (this is List)\n    return get(index)\n    return elementAtOrElse(index) { throw
IndexOutOfBoundsException("Collection doesn't contain element at index $index.") }\n}\n\n/**\n * Returns an
element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this list.\n
*\n * @sample
samples.collections.Collections.Elements.elementAt\n
*\n@kotlin.internal.InlineOnly\npublic
inline fun <T> List<T>.elementAt(index: Int): T {\n    return get(index)\n}\n\n/**\n * Returns an element at the
given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this collection.\n
*\n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n
*\npublic fun <T>
Iterable<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n    if (this is List)\n    return
this.getOrElse(index, defaultValue)\n    if (index < 0)\n    return defaultValue(index)\n    val iterator = iterator()\n    var count = 0\n    while (iterator.hasNext()) {\n        val element = iterator.next()\n        if (index == count++)\n        return element\n    }\n    return defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the
result of calling the [defaultValue] function if the [index] is out of bounds of this list.\n
*\n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n
*\n@kotlin.internal.InlineOnly\npublic inline fun
<T> List<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the
[index] is out of bounds of this collection.\n
*\n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n
*\npublic fun <T>
Iterable<T>.elementAtOrNull(index: Int): T? {\n    if (this is List)\n    return this.getOrElse(index)\n    if (index <

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0)\n    return null\n    val iterator = iterator()\n    var count = 0\n    while (iterator.hasNext()) {\n        val element =
iterator.next()\n        if (index == count++)\n            return element\n    }\n    return null\n}\n\n/**\n * Returns an
element at the given [index] or `null` if the [index] is out of bounds of this list.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n * \n @kotlin.internal.InlineOnly\npublic inline fun
<T> List<T>.elementAtOrNull(index: Int): T? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns the first
element matching the given [predicate], or `null` if no such element was found.\n
*\n @kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.find(predicate: (T) -> Boolean): T? {\n    return
firstOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such
element was found.\n * \n @kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.findLast(predicate: (T) ->
Boolean): T? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given
[predicate], or `null` if no such element was found.\n * \n @kotlin.internal.InlineOnly\npublic inline fun <T>
List<T>.findLast(predicate: (T) -> Boolean): T? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns first
element.\n * @throws [NoSuchElementException] if the collection is empty.\n * \n public fun <T>
Iterable<T>.first(): T {\n    when (this) {\n        is List -> return this.first()\n        else -> {\n            val iterator =
iterator()\n            if (!iterator.hasNext())\n                throw NoSuchElementException("Collection is empty.")\n            return
iterator.next()\n        }\n    }\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException]
if the list is empty.\n * \n public fun <T> List<T>.first(): T {\n    if (isEmpty())\n        throw
NoSuchElementException("List is empty.")\n    return this[0]\n}\n\n/**\n * Returns the first element matching the
given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n * \n public inline fun <T>
Iterable<T>.first(predicate: (T) -> Boolean): T {\n    for (element in this) if (predicate(element)) return element\n
throw NoSuchElementException("Collection contains no element matching the predicate.")\n}\n\n/**\n * Returns
the first element, or `null` if the collection is empty.\n * \n public fun <T> Iterable<T>.firstOrNull(): T? {\n    when
(this) {\n        is List -> {\n            if (isEmpty())\n                return null\n            else\n                return
this[0]\n        }\n        else -> {\n            val iterator = iterator()\n            if (!iterator.hasNext())\n                return
null\n            return iterator.next()\n        }\n    }\n}\n\n/**\n * Returns the first element, or `null` if the list is empty.\n * \n public
fun <T> List<T>.firstOrNull(): T? {\n    return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element
matching the given [predicate], or `null` if element was not found.\n * \n public inline fun <T>
Iterable<T>.firstOrNull(predicate: (T) -> Boolean): T? {\n    for (element in this) if (predicate(element)) return
element\n    return null\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the
[defaultValue] function if the [index] is out of bounds of this list.\n * \n @kotlin.internal.InlineOnly\npublic inline
fun <T> List<T>.getOrNull(index: Int, defaultValue: (Int) -> T): T {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the
[index] is out of bounds of this list.\n * \n public fun <T> List<T>.getOrNull(index: Int): T? {\n    return if (index >=
0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns first index of [element], or -1 if the collection
does not contain element.\n * \n @kotlin.internal.OnlyInputTypes T> Iterable<T>.indexOf(element: T):
Int {\n    if (this is List) return this.indexOf(element)\n    var index = 0\n    for (item in this) {\n
checkIndexOverflow(index)\n        if (element == item)\n            return index\n            index++\n    }\n    return -
1\n}\n\n/**\n * Returns first index of [element], or -1 if the list does not contain element.\n
*\n @Suppress("EXTENSION_SHADOWED_BY_MEMBER") // false warning, extension takes precedence in
some cases\npublic fun <@kotlin.internal.OnlyInputTypes T> List<T>.indexOf(element: T): Int {\n    return
indexOf(element)\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the
collection does not contain such element.\n * \n public inline fun <T> Iterable<T>.indexOfFirst(predicate: (T) ->
Boolean): Int {\n    var index = 0\n    for (item in this) {\n        checkIndexOverflow(index)\n        if
(predicate(item))\n            return index\n            index++\n    }\n    return -1\n}\n\n/**\n * Returns index of the first
element matching the given [predicate], or -1 if the list does not contain such element.\n * \n public inline fun <T>
List<T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n    var index = 0\n    for (item in this) {\n        if
(predicate(item))\n            return index\n            index++\n    }\n    return -1\n}\n\n/**\n * Returns index of the last
element matching the given [predicate], or -1 if the collection does not contain such element.\n * \n public inline fun

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<T> Iterable<T>.indexOfLast(predicate: (T) -> Boolean): Int {
    var lastIndex = -1
    var index = 0
    for (item in this) {
        checkIndexOverflow(index)
        if (predicate(item))
            lastIndex = index
            index++
    }
    return lastIndex
}

Returns index of the last element matching the given [predicate], or -1 if the list does not contain such element.

public inline fun <T> List<T>.indexOfLast(predicate: (T) -> Boolean): Int {
    val iterator = this.listIterator(size)
    while (iterator.hasPrevious()) {
        if (predicate(iterator.previous())) {
            return iterator.nextIndex()
        }
    }
    return -1
}

Returns the last element.

@throws [NoSuchElementException] if the collection is empty.

public fun <T> Iterable<T>.last(): T {
    when (this) {
        is List -> return this.last()
        else -> {
            val iterator = iterator()
            if (!iterator.hasNext())
                throw NoSuchElementException("Collection is empty.")
            var last = iterator.next()
            while (iterator.hasNext())
                last = iterator.next()
            return last
        }
    }
}

Returns the last element.

@throws [NoSuchElementException] if the list is empty.

public fun <T> List<T>.last(): T {
    if (isEmpty())
        throw NoSuchElementException("List is empty.")
    return this[lastIndex]
}

Returns the last element matching the given [predicate].

@throws [NoSuchElementException] if no such element is found.

public inline fun <T> Iterable<T>.last(predicate: (T) -> Boolean): T {
    var last: T? = null
    var found = false
    for (element in this) {
        if (predicate(element)) {
            last = element
            found = true
        }
    }
    if (!found)
        throw NoSuchElementException("Collection contains no element matching the predicate.")
    @SuppressWarnings("UNCHECKED_CAST")
    return last as T
}

Returns the last element matching the given [predicate].

@throws [NoSuchElementException] if no such element is found.

public inline fun <T> List<T>.last(predicate: (T) -> Boolean): T {
    val iterator = this.listIterator(size)
    while (iterator.hasPrevious()) {
        val element = iterator.previous()
        if (predicate(element))
            return element
    }
    throw NoSuchElementException("List contains no element matching the predicate.")
}

Returns last index of [element], or -1 if the collection does not contain element.

@kotlin.internal.OnlyInputTypes T> Iterable<T>.lastIndexOf(element: T): Int {
    if (this is List)
        return this.lastIndexOf(element)
    var lastIndex = -1
    var index = 0
    for (item in this) {
        checkIndexOverflow(index)
        if (element == item)
            lastIndex = index
            index++
    }
    return lastIndex
}

Returns last index of [element], or -1 if the list does not contain element.

@Suppress("EXTENSION_SHADOWED_BY_MEMBER") // false warning, extension takes precedence in some cases
public fun <@kotlin.internal.OnlyInputTypes T> List<T>.lastIndexOf(element: T): Int {
    return lastIndexOf(element)
}

Returns the last element, or `null` if the collection is empty.

public fun <T> Iterable<T>.lastOrNull(): T? {
    when (this) {
        is List -> return if (isEmpty()) null else this[size - 1]
        else -> {
            val iterator = iterator()
            if (!iterator.hasNext())
                return null
            var last = iterator.next()
            while (iterator.hasNext())
                last = iterator.next()
            return last
        }
    }
}

Returns the last element, or `null` if the list is empty.

public fun <T> List<T>.lastOrNull(): T? {
    return if (isEmpty()) null else this[size - 1]
}

Returns the last element matching the given [predicate], or `null` if no such element was found.

public inline fun <T> Iterable<T>.lastOrNull(predicate: (T) -> Boolean): T? {
    var last: T? = null
    for (element in this) {
        if (predicate(element)) {
            last = element
        }
    }
    return last
}

Returns the last element matching the given [predicate], or `null` if no such element was found.

public inline fun <T> List<T>.lastOrNull(predicate: (T) -> Boolean): T? {
    val iterator = this.listIterator(size)
    while (iterator.hasPrevious()) {
        val element = iterator.previous()
        if (predicate(element))
            return element
    }
    return null
}

Returns a random element from this collection.

@throws NoSuchElementException if this collection is empty.

@SinceKotlin("1.3")
@kotlin.internal.InlineOnly
public inline fun <T> Collection<T>.random(): T {
    return random(Random)
}

Returns a random element from this collection using the specified source of randomness.

@throws NoSuchElementException if this collection is empty.

@SinceKotlin("1.3")
public fun <T> Collection<T>.random(random: Random): T {
    if (isEmpty())
        throw NoSuchElementException("Collection is empty.")
    return elementAt(random.nextInt(size))
}

Returns the single element, or throws an exception if the collection is empty or has more than one element.

public fun <T> Iterable<T>.single(): T {
    when (this) {
        is List -> return this.single()
        else -> {

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        val iterator = iterator()\n        if (!iterator.hasNext())\n            throw NoSuchElementException("Collection\n            is empty.")\n        val single = iterator.next()\n        if (iterator.hasNext())\n            throw\n            IllegalArgumentException("Collection has more than one element.")\n        return single\n    }\n}\n\n/**\n * Returns the single element, or throws an exception if the list is empty or has more than one\n * element.\n */\npublic fun <T> List<T>.single(): T {\n    return when (size) {\n        0 -> throw\n        NoSuchElementException("List is empty.")\n        1 -> this[0]\n        else -> throw\n        IllegalArgumentException("List has more than one element.")\n    }\n}\n\n/**\n * Returns the single element\n * matching the given [predicate], or throws exception if there is no or more than one matching element.\n */\npublic\ninline fun <T> Iterable<T>.single(predicate: (T) -> Boolean): T {\n    var single: T? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) throw\n                IllegalArgumentException("Collection contains more than one matching element.")\n            single = element\n            found = true\n        }\n    }\n    if (!found) throw NoSuchElementException("Collection contains no element\n    matching the predicate.")\n    @SuppressWarnings("UNCHECKED_CAST")\n    return single as T\n}\n\n/**\n * Returns\n * single element, or `null` if the collection is empty or has more than one element.\n */\npublic fun <T>\nIterable<T>.singleOrNull(): T? {\n    when (this) {\n        is List -> return if (size == 1) this[0] else null\n        else ->\n        {\n            val iterator = iterator()\n            if (!iterator.hasNext())\n                return null\n            val single =\n                iterator.next()\n            if (iterator.hasNext())\n                return null\n            return single\n        }\n    }\n}\n\n/**\n * Returns single element, or `null` if the list is empty or has more than one element.\n */\npublic fun <T>\nList<T>.singleOrNull(): T? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single element\n * matching the given [predicate], or `null` if element was not found or more than one element was found.\n */\npublic\ninline fun <T> Iterable<T>.singleOrNull(predicate: (T) -> Boolean): T? {\n    var single: T? = null\n    var found =\n        false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single =\n                element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns a list\n * containing all elements except first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> Iterable<T>.drop(n: Int):\nList<T> {\n    require(n >= 0) {"Requested element count $n is less than zero." }\n    if (n == 0) return toList()\n    val list: ArrayList<T>\n        if (this is Collection<*>) {\n            val resultSize = size - n\n            if (resultSize <= 0)\n                return emptyList()\n            if (resultSize == 1)\n                return listOf(last())\n            list = ArrayList<T>(resultSize)\n            if (this is List<T>) {\n                if (this is RandomAccess) {\n                    for (index in n until size)\n                        list.add(this[index])\n                } else {\n                    for (item in listIterator(n))\n                        list.add(item)\n                }\n            }\n            return list\n        }\n        else {\n            list = ArrayList<T>()\n            var count = 0\n            for (item in this) {\n                if (count >= n) list.add(item) else ++count\n            }\n            return list.optimizeReadOnlyList()\n        }\n}\n\n/**\n * Returns a list\n * containing all elements except last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic fun <T> List<T>.dropLast(n: Int):\nList<T> {\n    require(n >= 0) {"Requested element count $n is less than zero." }\n    return take((size -\n    n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given\n * [predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T>\nList<T>.dropLastWhile(predicate: (T) -> Boolean): List<T> {\n    if (!isEmpty()) {\n        val iterator =\n            listIterator(size)\n        while (iterator.hasPrevious()) {\n            if (!predicate(iterator.previous())) {\n                return\n                take(iterator.nextIndex() + 1)\n            }\n        }\n    }\n    return emptyList()\n}\n\n/**\n * Returns a list containing\n * all elements except first elements that satisfy the given [predicate].\n * \n * @sample\n * samples.collections.Collections.Transformations.drop\n */\npublic inline fun <T> Iterable<T>.dropWhile(predicate:\n(T) -> Boolean): List<T> {\n    var yielding = false\n    val list = ArrayList<T>()\n    for (item in this)\n        if\n        (yielding)\n            list.add(item)\n        else if (!predicate(item)) {\n            list.add(item)\n            yielding = true\n        }\n    return list\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n */\npublic\ninline fun <T> Iterable<T>.filter(predicate: (T) -> Boolean): List<T> {\n    return filterTo(ArrayList<T>(),\n    predicate)\n}\n\n/**\n * Returns a list containing only elements matching the given [predicate].\n * \n * @param\n * [predicate] function that takes the index of an element and the element itself\n * and returns the result of predicate

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evaluation on the element.\n *^public inline fun <T> Iterable<T>.filterIndexed(predicate: (index: Int, T) ->
Boolean): List<T> {\n    return filterIndexedTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Appends all elements
matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of an
element and the element itself\n * and returns the result of predicate evaluation on the element.\n *^public inline
fun <T, C : MutableCollection<in T>> Iterable<T>.filterIndexedTo(destination: C, predicate: (index: Int, T) ->
Boolean): C {\n    forEachIndexed { index, element ->\n        if (predicate(index, element))
destination.add(element)\n    }\n    return destination\n}\n\n/**\n * Returns a list containing all elements that are
instances of specified type parameter R.\n *^public inline fun <reified R> Iterable<*>.filterIsInstance():
List<@kotlin.internal.NoInfer R> {\n    return filterIsInstanceTo(ArrayList<R>())\n}\n\n/**\n * Appends all
elements that are instances of specified type parameter R to the given [destination].\n *^public inline fun <reified
R, C : MutableCollection<in R>> Iterable<*>.filterIsInstanceTo(destination: C): C {\n    for (element in this) if
(element is R) destination.add(element)\n    return destination\n}\n\n/**\n * Returns a list containing all elements
not matching the given [predicate].\n *^public inline fun <T> Iterable<T>.filterNot(predicate: (T) -> Boolean):
List<T> {\n    return filterNotTo(ArrayList<T>(), predicate)\n}\n\n/**\n * Returns a list containing all elements that
are not `null`.\n *^public fun <T : Any> Iterable<T?>.filterNotNull(): List<T> {\n    return
filterNotNullTo(ArrayList<T>())\n}\n\n/**\n * Appends all elements that are not `null` to the given [destination].\n
*^public fun <C : MutableCollection<in T>, T : Any> Iterable<T?>.filterNotNullTo(destination: C): C {\n    for
(element in this) if (element != null) destination.add(element)\n    return destination\n}\n\n/**\n * Appends all
elements not matching the given [predicate] to the given [destination].\n *^public inline fun <T, C :
MutableCollection<in T>> Iterable<T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {\n    for (element
in this) if (!predicate(element)) destination.add(element)\n    return destination\n}\n\n/**\n * Appends all elements
matching the given [predicate] to the given [destination].\n *^public inline fun <T, C : MutableCollection<in T>>
Iterable<T>.filterTo(destination: C, predicate: (T) -> Boolean): C {\n    for (element in this) if (predicate(element))
destination.add(element)\n    return destination\n}\n\n/**\n * Returns a list containing elements at indices in the
specified [indices] range.\n *^public fun <T> List<T>.slice(indices: IntRange): List<T> {\n    if
(indices.isEmpty()) return listOf()\n    return this.subList(indices.start, indices.endInclusive + 1).toList()\n}\n\n/**\n
* Returns a list containing elements at specified [indices].\n *^public fun <T> List<T>.slice(indices:
Iterable<Int>): List<T> {\n    val size = indices.collectionSizeOrDefault(10)\n    if (size == 0) return emptyList()\n
val list = ArrayList<T>(size)\n    for (index in indices) {\n        list.add(get(index))\n    }\n    return list\n}\n\n/**\n
* Returns a list containing first [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n *
@sample samples.collections.Collections.Transformations.take\n *^public fun <T> Iterable<T>.take(n: Int):
List<T> {\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return
emptyList()\n    if (this is Collection<T>) {\n        if (n >= size) return toList()\n        if (n == 1) return
listOf(first())\n    }\n    var count = 0\n    val list = ArrayList<T>(n)\n    for (item in this) {\n        if (count++ == n)\n            break\n        list.add(item)\n    }\n    return list.optimizeReadOnlyList()\n}\n\n/**\n * Returns a list containing
last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n *^public fun <T> List<T>.takeLast(n: Int): List<T> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val size =
size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(last())\n    val list = ArrayList<T>(n)\n    if (this is
RandomAccess) {\n        for (index in size - n until size)\n            list.add(this[index])\n    } else {\n        for (item in
listIterator(size - n))\n            list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list containing last elements
satisfying the given [predicate].\n * \n * @sample samples.collections.Collections.Transformations.take\n *^public
inline fun <T> List<T>.takeLastWhile(predicate: (T) -> Boolean): List<T> {\n    if (isEmpty())\n        return
emptyList()\n    val iterator = listIterator(size)\n    while (iterator.hasPrevious()) {\n        if
(!predicate(iterator.previous())) {\n            iterator.next()\n            val expectedSize = size - iterator.nextIndex()\n
            if (expectedSize == 0) return emptyList()\n            return ArrayList<T>(expectedSize).apply {\n                while
(iterator.hasNext())\n                    add(iterator.next())\n            }\n        }\n    }\n    return toList()\n}\n\n/**\n
* Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample

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samples.collections.Collections.Transformations.take\n *
\npublic inline fun <T> Iterable<T>.takeWhile(predicate:
(T) -> Boolean): List<T> {\n    val list = ArrayList<T>()\n    for (item in this) {\n        if (!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Reverses elements in the list in-place.\n */\n\npublic
expect fun <T> MutableList<T>.reverse(): Unit\n\n/**\n * Returns a list with elements in reversed order.\n */\n\npublic fun <T> Iterable<T>.reversed(): List<T> {\n    if (this is Collection && size <= 1) return toList()\n    val list = toMutableList()\n    list.reverse()\n    return list\n}\n\n/**\n * Sorts elements in the list in-place according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n\npublic inline fun <T, R : Comparable<R>> MutableList<T>.sortBy(crossinline selector: (T) -> R?): Unit {\n    if (size > 1) sortByWith(compareBy(selector))\n}\n\n/**\n * Sorts elements in the list in-place descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n\npublic inline fun <T, R : Comparable<R>> MutableList<T>.sortByDescending(crossinline selector: (T) -> R?): Unit {\n    if (size > 1) sortByDescendingWith(compareByDescending(selector))\n}\n\n/**\n * Sorts elements in the list in-place descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n\npublic fun <T : Comparable<T>> MutableList<T>.sortDescending(): Unit {\n    sortByDescendingWith(reverseOrder())\n}\n\n/**\n * Returns a list of all elements sorted according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n\npublic fun <T : Comparable<T>> Iterable<T>.sorted(): List<T> {\n    if (this is Collection) {\n        if (size <= 1) return this.toList()\n        @Suppress("UNCHECKED_CAST")\n        return (toTypedArray<Comparable<T>>() as Array<T>).apply { sort() }.asList()\n    }\n    return toMutableList().apply { sort() }\n}\n\n/**\n * Returns a list of all elements sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n\npublic inline fun <T, R : Comparable<R>> Iterable<T>.sortedBy(crossinline selector: (T) -> R?): List<T> {\n    return sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n\npublic inline fun <T, R : Comparable<R>> Iterable<T>.sortedByDescending(crossinline selector: (T) -> R?): List<T> {\n    return sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a list of all elements sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n\npublic fun <T : Comparable<T>> Iterable<T>.sortedDescending(): List<T> {\n    return sortedWith(reverseOrder())\n}\n\n/**\n * Returns a list of all elements sorted according to the specified [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative to each other after sorting.\n */\n\npublic fun <T> Iterable<T>.sortedWith(comparator: Comparator<in T>): List<T> {\n    if (this is Collection) {\n        if (size <= 1) return this.toList()\n        @Suppress("UNCHECKED_CAST")\n        return (toTypedArray<Any?>() as Array<T>).apply { sortByWith(comparator) }.asList()\n    }\n    return toMutableList().apply { sortByWith(comparator) }\n}\n\n/**\n * Returns an array of Boolean containing all of the elements of this collection.\n */\n\npublic fun Collection<Boolean>.toBooleanArray(): BooleanArray {\n    val result = BooleanArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] = element\n    return result\n}\n\n/**\n * Returns an array of Byte containing all of the elements of this collection.\n */\n\npublic fun Collection<Byte>.toByteArray(): ByteArray {\n    val result = ByteArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] = element\n    return result\n}\n\n/**\n * Returns an array of Char containing all of the elements of this collection.\n */\n\npublic fun Collection<Char>.toCharArray(): CharArray {\n    val result = CharArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] = element\n    return result\n}\n\n/**\n * Returns an array of Double containing all of the elements of this collection.\n */\n\npublic fun Collection<Double>.toDoubleArray(): DoubleArray {\n    val result = DoubleArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] = element\n    return result\n}\n\n/**\n * Returns an array of Float containing all of the elements of this collection.\n */\n\npublic fun Collection<Float>.toFloatArray(): FloatArray {\n    val result

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= FloatArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] = element\n    return
result\n}\n\n/**\n * Returns an array of Int containing all of the elements of this collection.\n */\npublic fun
Collection<Int>.toIntArray(): IntArray {\n    val result = IntArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] = element\n    return result\n}\n\n/**\n * Returns an array of Long containing all of the elements
of this collection.\n */\npublic fun Collection<Long>.toLongArray(): LongArray {\n    val result =
LongArray(size)\n    var index = 0\n    for (element in this)\n        result[index++] = element\n    return
result\n}\n\n/**\n * Returns an array of Short containing all of the elements of this collection.\n */\npublic fun
Collection<Short>.toShortArray(): ShortArray {\n    val result = ShortArray(size)\n    var index = 0\n    for (element
in this)\n        result[index++] = element\n    return result\n}\n\n/**\n * Returns a [Map] containing key-value pairs
provided by [transform] function\n * applied to elements of the given collection.\n * \n * If any of two pairs would
have the same key the last one gets added to the map.\n * \n * The returned map preserves the entry iteration order
of the original collection.\n */\npublic inline fun <T, K, V> Iterable<T>.associate(transform: (T) -> Pair<K, V>):
Map<K, V> {\n    val capacity = mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n    return
associateTo(LinkedHashMap<K, V>(capacity), transform)\n}\n\n/**\n * Returns a [Map] containing the elements
from the given collection indexed by the key\n * returned from [keySelector] function applied to each element.\n *
\n * If any two elements would have the same key returned by [keySelector] the last one gets added to the map.\n *
\n * The returned map preserves the entry iteration order of the original collection.\n */\npublic inline fun <T, K>
Iterable<T>.associateBy(keySelector: (T) -> K): Map<K, T> {\n    val capacity =
mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n    return associateByTo(LinkedHashMap<K,
T>(capacity), keySelector)\n}\n\n/**\n * Returns a [Map] containing the values provided by [valueTransform] and
indexed by [keySelector] functions applied to elements of the given collection.\n * \n * If any two elements would
have the same key returned by [keySelector] the last one gets added to the map.\n * \n * The returned map preserves
the entry iteration order of the original collection.\n */\npublic inline fun <T, K, V>
Iterable<T>.associateBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, V> {\n    val capacity =
mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16)\n    return associateByTo(LinkedHashMap<K,
V>(capacity), keySelector, valueTransform)\n}\n\n/**\n * Populates and returns the [destination] mutable map with
key-value pairs,\n * where key is provided by the [keySelector] function applied to each element of the given
collection\n * and value is the element itself.\n * \n * If any two elements would have the same key returned by
[keySelector] the last one gets added to the map.\n */\npublic inline fun <T, K, M : MutableMap<in K, in T>>
Iterable<T>.associateByTo(destination: M, keySelector: (T) -> K): M {\n    for (element in this) {\n
destination.put(keySelector(element), element)\n    }\n    return destination\n}\n\n/**\n * Populates and returns the
[destination] mutable map with key-value pairs,\n * where key is provided by the [keySelector] function and\n *
value is provided by the [valueTransform] function applied to elements of the given collection.\n * \n * If any two
elements would have the same key returned by [keySelector] the last one gets added to the map.\n */\npublic inline
fun <T, K, V, M : MutableMap<in K, in V>> Iterable<T>.associateByTo(destination: M, keySelector: (T) -> K,
valueTransform: (T) -> V): M {\n    for (element in this) {\n        destination.put(keySelector(element),
valueTransform(element))\n    }\n    return destination\n}\n\n/**\n * Populates and returns the [destination] mutable
map with key-value pairs\n * provided by [transform] function applied to each element of the given collection.\n *
\n * If any of two pairs would have the same key the last one gets added to the map.\n */\npublic inline fun <T, K,
V, M : MutableMap<in K, in V>> Iterable<T>.associateTo(destination: M, transform: (T) -> Pair<K, V>): M {\n
for (element in this) {\n        destination += transform(element)\n    }\n    return destination\n}\n\n/**\n * Returns a
[Map] where keys are elements from the given collection and values are\n * produced by the [valueSelector]
function applied to each element.\n * \n * If any two elements are equal, the last one gets added to the map.\n *
\n * The returned map preserves the entry iteration order of the original collection.\n * \n * @sample
samples.collections.Collections.Transformations.associateWith\n */\n@SinceKotlin("1.3")\npublic inline fun <K,
V> Iterable<K>.associateWith(valueSelector: (K) -> V): Map<K, V> {\n    val result = LinkedHashMap<K,
V>(mapCapacity(collectionSizeOrDefault(10)).coerceAtLeast(16))\n    return associateWithTo(result,
valueSelector)\n}\n\n/**\n * Populates and returns the [destination] mutable map with key-value pairs for each

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element of the given collection, \n \* where key is the element itself and value is provided by the [valueSelector] function applied to that key. \n \* \n \* If any two elements are equal, the last one overwrites the former value in the map. \n \* \n \* @Since Kotlin("1.3") \n public inline fun <K, V, M : MutableMap<in K, in V>>

Iterable<K>.associateWithTo(destination: M, valueSelector: (K) -> V): M { \n for (element in this) { \n destination.put(element, valueSelector(element)) \n } \n return destination \n } \n \n \n \* Appends all elements to the given [destination] collection. \n \* \n public fun <T, C : MutableCollection<in T>>

Iterable<T>.toCollection(destination: C): C { \n for (item in this) { \n destination.add(item) \n } \n return destination \n } \n \n \n \* Returns a [HashSet] of all elements. \n \* \n public fun <T> Iterable<T>.toHashSet(): HashSet<T> { \n return toCollection(HashSet<T>(mapCapacity(collectionSizeOrDefault(12)))) \n } \n \n \n \* Returns a [List] containing all elements. \n \* \n public fun <T> Iterable<T>.toList(): List<T> { \n if (this is Collection) { \n return when (size) { \n 0 -> emptyList() \n 1 -> listOf(if (this is List) get(0) else iterator().next()) \n else -> this.toMutableList() \n } \n } \n return this.toMutableList().optimizeReadOnlyList() \n } \n \n \n \* Returns a [MutableList] filled with all elements of this collection. \n \* \n public fun <T> Iterable<T>.toMutableList(): MutableList<T> { \n if (this is Collection<T>) \n return this.toMutableList() \n return toCollection(ArrayList<T>()) \n } \n \n \n \* Returns a [MutableList] filled with all elements of this collection. \n \* \n public fun <T> Collection<T>.toMutableList(): MutableList<T> { \n return ArrayList(this) \n } \n \n \n \* Returns a [Set] of all elements. \n \* \n \* The returned set preserves the element iteration order of the original collection. \n \* \n public fun <T> Iterable<T>.toSet(): Set<T> { \n if (this is Collection) { \n return when (size) { \n 0 -> emptySet() \n 1 -> setOf(if (this is List) this[0] else iterator().next()) \n else -> toCollection(LinkedHashSet<T>(mapCapacity(size))) \n } \n } \n return toCollection(LinkedHashSet<T>()).optimizeReadOnlySet() \n } \n \n \n \* Returns a single list of all elements yielded from results of [transform] function being invoked on each element of original collection. \n \* \n public inline fun <T, R> Iterable<T>.flatMap(transform: (T) -> Iterable<R>): List<R> { \n return flatMapTo(ArrayList<R>(), transform) \n } \n \n \n \* Appends all elements yielded from results of [transform] function being invoked on each element of original collection, to the given [destination]. \n \* \n public inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.flatMapTo(destination: C, transform: (T) -> Iterable<R>): C { \n for (element in this) { \n val list = transform(element) \n destination.addAll(list) \n } \n return destination \n } \n \n \n \* Groups elements of the original collection by the key returned by the given [keySelector] function \n \* applied to each element and returns a map where each group key is associated with a list of corresponding elements. \n \* \n \* The returned map preserves the entry iteration order of the keys produced from the original collection. \n \* \n \* @sample samples.collections.Collections.Transformations.groupBy \n \* \n public inline fun <T, K>

Iterable<T>.groupBy(keySelector: (T) -> K): Map<K, List<T>> { \n return groupByTo(LinkedHashMap<K, MutableList<T>>(), keySelector) \n } \n \n \n \* Groups values returned by the [valueTransform] function applied to each element of the original collection \n \* by the key returned by the given [keySelector] function applied to the element \n \* and returns a map where each group key is associated with a list of corresponding values. \n \* \n \* The returned map preserves the entry iteration order of the keys produced from the original collection. \n \* \n \* @sample samples.collections.Collections.Transformations.groupByKeysAndValues \n \* \n public inline fun <T, K, V>

Iterable<T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> { \n return groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform) \n } \n \n \n \* Groups elements of the original collection by the key returned by the given [keySelector] function \n \* applied to each element and puts to the [destination] map each group key associated with a list of corresponding elements. \n \* \n \* @return The [destination] map. \n \* \n \* @sample samples.collections.Collections.Transformations.groupBy \n \* \n public inline fun <T, K, M : MutableMap<in K, MutableList<T>>> Iterable<T>.groupByTo(destination: M, keySelector: (T) -> K): M { \n for (element in this) { \n val key = keySelector(element) \n val list = destination.getOrPut(key) { ArrayList<T>() } \n list.add(element) \n } \n return destination \n } \n \n \n \* Groups values returned by the [valueTransform] function applied to each element of the original collection \n \* by the key returned by the given [keySelector] function applied to the element \n \* and puts to the [destination] map each group key associated with a list of corresponding values. \n \* \n \* @return The [destination] map. \n \* \n \* @sample

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samples.collections.Collections.Transformations.groupByKeyAndValues\n * \npublic inline fun <T, K, V, M :
MutableMap<in K, MutableList<V>>> Iterable<T>.groupByTo(destination: M, keySelector: (T) -> K,
valueTransform: (T) -> V): M {\n    for (element in this) {\n        val key = keySelector(element)\n        val list =
destination.getOrPut(key) { ArrayList<V>() }\n        list.add(valueTransform(element))\n    }\n    return
destination}\n\n/**\n * Creates a [Grouping] source from a collection to be used later with one of group-and-fold
operations\n * using the specified [keySelector] function to extract a key from each element.\n * \n * @sample
samples.collections.Grouping.groupingByEachCount\n * \n@SinceKotlin("1.1")\npublic inline fun <T, K>
Iterable<T>.groupingBy(crossinline keySelector: (T) -> K): Grouping<T, K> {\n    return object : Grouping<T, K>
{\n        override fun sourceIterator(): Iterator<T> = this@groupingBy.iterator()\n        override fun keyOf(element:
T): K = keySelector(element)\n    }\n}\n\n/**\n * Returns a list containing the results of applying the given
[transform] function\n * to each element in the original collection.\n * \n * @sample
samples.collections.Collections.Transformations.map\n * \npublic inline fun <T, R> Iterable<T>.map(transform:
(T) -> R): List<R> {\n    return mapTo(ArrayList<R>(collectionSizeOrDefault(10)), transform)\n}\n\n/**\n *
Returns a list containing the results of applying the given [transform] function\n * to each element and its index in
the original collection.\n * @param [transform] function that takes the index of an element and the element itself\n *
and returns the result of the transform applied to the element.\n * \npublic inline fun <T, R>
Iterable<T>.mapIndexed(transform: (index: Int, T) -> R): List<R> {\n    return
mapIndexedTo(ArrayList<R>(collectionSizeOrDefault(10)), transform)\n}\n\n/**\n * Returns a list containing only
the non-null results of applying the given [transform] function\n * to each element and its index in the original
collection.\n * @param [transform] function that takes the index of an element and the element itself\n * and returns
the result of the transform applied to the element.\n * \npublic inline fun <T, R : Any>
Iterable<T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): List<R> {\n    return
mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each
element and its index in the original collection\n * and appends only the non-null results to the given [destination].\n
* @param [transform] function that takes the index of an element and the element itself\n * and returns the result of
the transform applied to the element.\n * \npublic inline fun <T, R : Any, C : MutableCollection<in R>>
Iterable<T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n    forEachIndexed {
index, element -> transform(index, element)?.let { destination.add(it) } }\n    return destination}\n\n/**\n *
Applies the given [transform] function to each element and its index in the original collection\n * and appends the
results to the given [destination].\n * @param [transform] function that takes the index of an element and the
element itself\n * and returns the result of the transform applied to the element.\n * \npublic inline fun <T, R, C :
MutableCollection<in R>> Iterable<T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {\n    var
index = 0\n    for (item in this)\n        destination.add(transform(checkIndexOverflow(index++), item))\n    return
destination}\n\n/**\n * Returns a list containing only the non-null results of applying the given [transform]
function\n * to each element in the original collection.\n * \npublic inline fun <T, R : Any>
Iterable<T>.mapNotNull(transform: (T) -> R?): List<R> {\n    return mapNotNullTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Applies the given [transform] function to each element in the original collection\n * and
appends only the non-null results to the given [destination].\n * \npublic inline fun <T, R : Any, C :
MutableCollection<in R>> Iterable<T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {\n    forEach {
element -> transform(element)?.let { destination.add(it) } }\n    return destination}\n\n/**\n * Applies the given
[transform] function to each element of the original collection\n * and appends the results to the given
[destination].\n * \npublic inline fun <T, R, C : MutableCollection<in R>> Iterable<T>.mapTo(destination: C,
transform: (T) -> R): C {\n    for (item in this)\n        destination.add(transform(item))\n    return
destination}\n\n/**\n * Returns a lazy [Iterable] that wraps each element of the original collection\n * into an
[IndexValue] containing the index of that element and the element itself.\n * \npublic fun <T>
Iterable<T>.withIndex(): Iterable<IndexedValue<T>> {\n    return IndexingIterable { iterator() }\n}\n\n/**\n *
Returns a list containing only distinct elements from the given collection.\n * \n * The elements in the resulting list
are in the same order as they were in the source collection.\n * \npublic fun <T> Iterable<T>.distinct(): List<T> {\n

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return this.toMutableSet().toList()\n\n/**\n * Returns a list containing only elements from the given collection\n * having distinct keys returned by the given [selector] function.\n * \n * The elements in the resulting list are in the\n * same order as they were in the source collection.\n */\npublic inline fun <T, K> Iterable<T>.distinctBy(selector: (T\n-> K): List<T> {\n    val set = HashSet<K>()\n    val list = ArrayList<T>()\n    for (e in this) {\n        val key =\n        selector(e)\n        if (set.add(key))\n            list.add(e)\n    }\n    return list\n}\n\n/**\n * Returns a set containing all\n * elements that are contained by both this set and the specified collection.\n * \n * The returned set preserves the\n * element iteration order of the original collection.\n */\npublic infix fun <T> Iterable<T>.intersect(other:\nIterable<T>): Set<T> {\n    val set = this.toMutableSet()\n    set.retainAll(other)\n    return set\n}\n\n/**\n * Returns\n * a set containing all elements that are contained by this collection and not contained by the specified collection.\n * \n * The returned set preserves the element iteration order of the original collection.\n */\npublic infix fun <T>\nIterable<T>.subtract(other: Iterable<T>): Set<T> {\n    val set = this.toMutableSet()\n    set.removeAll(other)\n    return set\n}\n\n/**\n * Returns a mutable set containing all distinct elements from the given collection.\n * \n * The\n * returned set preserves the element iteration order of the original collection.\n */\npublic fun <T>\nIterable<T>.toMutableSet(): MutableSet<T> {\n    return when (this) {\n        is Collection<T> ->\n        LinkedHashSet(this)\n        else -> toCollection(LinkedHashSet<T>())\n    }\n}\n\n/**\n * Returns a set containing\n * all distinct elements from both collections.\n * \n * The returned set preserves the element iteration order of the\n * original collection.\n * Those elements of the [other] collection that are unique are iterated in the end\n * in the order\n * of the [other] collection.\n */\npublic infix fun <T> Iterable<T>.union(other: Iterable<T>): Set<T> {\n    val set =\n    this.toMutableSet()\n    set.addAll(other)\n    return set\n}\n\n/**\n * Returns `true` if all elements match the given\n * [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.all\n */\npublic inline fun <T>\nIterable<T>.all(predicate: (T) -> Boolean): Boolean {\n    if (this is Collection && isEmpty()) return true\n    for\n    (element in this) if (!predicate(element)) return false\n    return true\n}\n\n/**\n * Returns `true` if collection has at\n * least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n */\npublic fun <T>\nIterable<T>.any(): Boolean {\n    if (this is Collection) return !isEmpty()\n    return iterator().hasNext()\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample\n * samples.collections.Collections.Aggregates.anyWithPredicate\n */\npublic inline fun <T>\nIterable<T>.any(predicate: (T) -> Boolean): Boolean {\n    if (this is Collection && isEmpty()) return false\n    for\n    (element in this) if (predicate(element)) return true\n    return false\n}\n\n/**\n * Returns the number of elements in\n * this collection.\n */\npublic fun <T> Iterable<T>.count(): Int {\n    if (this is Collection) return size\n    var count =\n    0\n    for (element in this) checkCountOverflow(++count)\n    return count\n}\n\n/**\n * Returns the number of\n * elements in this collection.\n * \n * @kotlin.internal.InlineOnly\n */\npublic inline fun <T> Collection<T>.count(): Int {\n    return size\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n */\npublic inline fun <T>\nIterable<T>.count(predicate: (T) -> Boolean): Int {\n    if (this is Collection && isEmpty()) return 0\n    var count =\n    0\n    for (element in this) if (predicate(element)) checkCountOverflow(++count)\n    return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right to current accumulator\n * value and each element.\n */\npublic inline fun <T, R> Iterable<T>.fold(initial: R, operation: (acc: R, T) -> R): R\n{\n    var accumulator = initial\n    for (element in this) accumulator = operation(accumulator, element)\n    return\n    accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to\n * right\n * to current accumulator value and each element with its index in the original collection.\n * \n * @param\n * [operation] function that takes the index of an element, current accumulator value\n * and the element itself, and\n * calculates the next accumulator value.\n */\npublic inline fun <T, R> Iterable<T>.foldIndexed(initial: R, operation:\n(index: Int, acc: R, T) -> R): R {\n    var index = 0\n    var accumulator = initial\n    for (element in this) accumulator\n    = operation(checkIndexOverflow(index++), accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left to each element and\n * current\n * accumulator value.\n */\npublic inline fun <T, R> List<T>.foldRight(initial: R, operation: (T, acc: R) -> R):\nR {\n    var accumulator = initial\n    if (!isEmpty()) {\n        val iterator = listIterator(size)\n        while\n        (iterator.hasPrevious()) {\n            accumulator = operation(iterator.previous(), accumulator)\n        }\n    }\n    return\n    accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to

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left\n * to each element with its index in the original list and current accumulator value.\n * @param [operation]
function that takes the index of an element, the element itself\n * and current accumulator value, and calculates the
next accumulator value.\n *\npublic inline fun <T, R> List<T>.foldRightIndexed(initial: R, operation: (index: Int,
T, acc: R) -> R): R {\n    var accumulator = initial\n    if (!isEmpty()) {\n        val iterator = listIterator(size)\n        while (iterator.hasPrevious()) {\n            val index = iterator.previousIndex()\n            accumulator =
operation(index, iterator.previous(), accumulator)\n        }\n    }\n    return accumulator\n}\n\n/**\n * Performs the
given [action] on each element.\n *\n@kotlin.internal.HidesMembers\npublic inline fun <T>
Iterable<T>.forEach(action: (T) -> Unit): Unit {\n    for (element in this) action(element)\n}\n\n/**\n * Performs the
given [action] on each element, providing sequential index with the element.\n * @param [action] function that
takes the index of an element and the element itself\n * and performs the desired action on the element.\n *\npublic
inline fun <T> Iterable<T>.forEachIndexed(action: (index: Int, T) -> Unit): Unit {\n    var index = 0\n    for (item in
this) action(checkIndexOverflow(index++), item)\n}\n\n/**\n * Returns the largest element or `null` if there are no
elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n *\n@SinceKotlin("1.1")\npublic fun
Iterable<Double>.max(): Double? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max =
iterator.next()\n    if (max.isNaN()) return max\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if
(e.isNaN()) return e\n        if (max < e) max = e\n    }\n    return max\n}\n\n/**\n * Returns the largest element or
`null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n *\n@SinceKotlin("1.1")\npublic fun
Iterable<Float>.max(): Float? {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) return null\n    var max = iterator.next()\n    if (max.isNaN()) return max\n    while
(iterator.hasNext()) {\n        val e = iterator.next()\n        if (e.isNaN()) return e\n        if (max < e) max = e\n    }\n
return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n *\npublic fun <T :
Comparable<T>> Iterable<T>.max(): T? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var
max = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if (max < e) max = e\n    }\n
return max\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there
are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n *\npublic inline fun <T, R :
Comparable<R>> Iterable<T>.maxBy(selector: (T) -> R): T? {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) return null\n    var maxElem = iterator.next()\n    if (!iterator.hasNext()) return maxElem\n    var
maxValue = selector(maxElem)\n    do {\n        val e = iterator.next()\n        val v = selector(e)\n        if (maxValue <
v) {\n            maxElem = e\n            maxValue = v\n        }\n    } while (iterator.hasNext())\n    return
maxElem\n}\n\n/**\n * Returns the first element having the largest value according to the provided [comparator] or
`null` if there are no elements.\n *\npublic fun <T> Iterable<T>.maxWith(comparator: Comparator<in T>): T? {\n    val
iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max = iterator.next()\n    while
(iterator.hasNext()) {\n        val e = iterator.next()\n        if (comparator.compare(max, e) < 0) max = e\n    }\n
return max\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of elements
is `NaN` returns `NaN`.\n *\n@SinceKotlin("1.1")\npublic fun Iterable<Double>.min(): Double? {\n    val iterator
= iterator()\n    if (!iterator.hasNext()) return null\n    var min = iterator.next()\n    if (min.isNaN()) return min\n
while (iterator.hasNext()) {\n        val e = iterator.next()\n        if (e.isNaN()) return e\n        if (min > e) min = e\n
}\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n * \n * If any of
elements is `NaN` returns `NaN`.\n *\n@SinceKotlin("1.1")\npublic fun Iterable<Float>.min(): Float? {\n    val
iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var min = iterator.next()\n    if (min.isNaN()) return
min\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if (e.isNaN()) return e\n        if (min > e) min
= e\n    }\n    return min\n}\n\n/**\n * Returns the smallest element or `null` if there are no elements.\n *\npublic
fun <T : Comparable<T>> Iterable<T>.min(): T? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return
null\n    var min = iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if (min > e) min
= e\n    }\n    return min\n}\n\n/**\n * Returns the first element yielding the smallest value of the given function or
`null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n *\npublic
inline fun <T, R : Comparable<R>> Iterable<T>.minBy(selector: (T) -> R): T? {\n    val iterator = iterator()\n    if
(!iterator.hasNext()) return null\n    var minElem = iterator.next()\n    if (!iterator.hasNext()) return minElem\n    var

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minValue = selector(minElem)\n do {\n     val e = iterator.next()\n     val v = selector(e)\n     if (minValue >
v) {\n     minElem = e\n     minValue = v\n     }\n } while (iterator.hasNext())\n return
minElem\n}\n\n/**\n * Returns the first element having the smallest value according to the provided [comparator]
or `null` if there are no elements.\n */\npublic fun <T> Iterable<T>.minWith(comparator: Comparator<in T>): T?
{\n     val iterator = iterator()\n     if (!iterator.hasNext()) return null\n     var min = iterator.next()\n     while
(iterator.hasNext()) {\n     val e = iterator.next()\n     if (comparator.compare(min, e) > 0) min = e\n     }\n     return
min\n}\n\n/**\n * Returns `true` if the collection has no elements.\n */\n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun <T> Iterable<T>.none(): Boolean {\n     if (this is
Collection) return isEmpty()\n     return !iterator().hasNext()\n}\n\n/**\n * Returns `true` if no elements match the
given [predicate].\n */\n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic
inline fun <T> Iterable<T>.none(predicate: (T) -> Boolean): Boolean {\n     if (this is Collection && isEmpty())
return true\n     for (element in this) if (predicate(element)) return false\n     return true\n}\n\n/**\n * Performs the
given [action] on each element and returns the collection itself afterwards.\n */\n * @SinceKotlin("1.1")\npublic
inline fun <T, C : Iterable<T>> C.onEach(action: (T) -> Unit): C {\n     return apply { for (element in this)
action(element) }\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left
to right to current accumulator value and each element.\n */\npublic inline fun <S, T : S>
Iterable<T>.reduce(operation: (acc: S, T) -> S): S {\n     val iterator = this.iterator()\n     if (!iterator.hasNext()) throw
UnsupportedOperationException("Empty collection can't be reduced.")\n     var accumulator: S = iterator.next()\n
while (iterator.hasNext()) {\n     accumulator = operation(accumulator, iterator.next())\n     }\n     return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n */\n * to current accumulator value and each element with its index in the original collection.\n */\n * @param
[operation] function that takes the index of an element, current accumulator value\n */\n * and the element itself and
calculates the next accumulator value.\n */\npublic inline fun <S, T : S> Iterable<T>.reduceIndexed(operation:
(index: Int, acc: S, T) -> S): S {\n     val iterator = this.iterator()\n     if (!iterator.hasNext()) throw
UnsupportedOperationException("Empty collection can't be reduced.")\n     var index = 1\n     var accumulator: S =
iterator.next()\n     while (iterator.hasNext()) {\n     accumulator = operation(checkIndexOverflow(index++),
accumulator, iterator.next())\n     }\n     return accumulator\n}\n\n/**\n * Accumulates value starting with last element
and applying [operation] from right to left to each element and current accumulator value.\n */\npublic inline fun
<S, T : S> List<T>.reduceRight(operation: (T, acc: S) -> S): S {\n     val iterator = listIterator(size)\n     if
(!iterator.hasPrevious())\n     throw UnsupportedOperationException("Empty list can't be reduced.")\n     var
accumulator: S = iterator.previous()\n     while (iterator.hasPrevious()) {\n     accumulator =
operation(iterator.previous(), accumulator)\n     }\n     return accumulator\n}\n\n/**\n * Accumulates value starting
with last element and applying [operation] from right to left\n */\n * to each element with its index in the original list and
current accumulator value.\n */\n * @param [operation] function that takes the index of an element, the element itself\n */\n *
and current accumulator value, and calculates the next accumulator value.\n */\npublic inline fun <S, T : S>
List<T>.reduceRightIndexed(operation: (index: Int, T, acc: S) -> S): S {\n     val iterator = listIterator(size)\n     if
(!iterator.hasPrevious())\n     throw UnsupportedOperationException("Empty list can't be reduced.")\n     var
accumulator: S = iterator.previous()\n     while (iterator.hasPrevious()) {\n     val index = iterator.previousIndex()\n
accumulator = operation(index, iterator.previous(), accumulator)\n     }\n     return accumulator\n}\n\n/**\n * Returns the sum of all values produced by [selector] function applied to each element in the collection.\n */\npublic
inline fun <T> Iterable<T>.sumBy(selector: (T) -> Int): Int {\n     var sum: Int = 0\n     for (element in this) {\n
sum += selector(element)\n     }\n     return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]
function applied to each element in the collection.\n */\npublic inline fun <T> Iterable<T>.sumByDouble(selector:
(T) -> Double): Double {\n     var sum: Double = 0.0\n     for (element in this) {\n     sum += selector(element)\n
}\n     return sum\n}\n\n/**\n * Returns an original collection containing all the non-`null` elements, throwing an
[IllegalArgumentException] if there are any `null` elements.\n */\npublic fun <T : Any>
Iterable<T?>.requireNonNulls(): Iterable<T> {\n     for (element in this) {\n     if (element == null) {\n     throw
IllegalArgumentException("null element found in $this.")\n     }\n     }\n }

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@Suppress("UNCHECKED_CAST")\n    return this as Iterable<T>\n}\n\n/**\n * Returns an original collection containing all the non-`null` elements, throwing an [IllegalArgumentException] if there are any `null` elements.\n *\npublic fun <T : Any> List<T?.>.requireNonNulls(): List<T> {\n    for (element in this) {\n        if (element == null) {\n            throw IllegalArgumentException("null element found in $this.")\n        }\n    }\n}\n\n@Suppress("UNCHECKED_CAST")\n    return this as List<T>\n}\n\n/**\n * Splits this collection into a list of lists each not exceeding the given [size].\n *\n * The last list in the resulting list may have less elements than the given [size].\n *\n * @param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this collection.\n *\n * @sample\n\nsamples.collections.Collections.Transformations.chunked\n\n*\n\n@SinceKotlin("1.2")\n\npublic fun <T> Iterable<T>.chunked(size: Int): List<List<T>> {\n    return windowed(size, size, partialWindows = true)\n}\n\n/**\n * Splits this collection into several lists each not exceeding the given [size]\n * and applies the given [transform] function to an each.\n *\n * @return list of results of the [transform] applied to an each list.\n *\n * Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n * The last list may have less elements than the given [size].\n *\n * @param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this collection.\n *\n * @sample\n\nsamples.text.Strings.chunkedTransform\n\n*\n\n@SinceKotlin("1.2")\n\npublic fun <T, R> Iterable<T>.chunked(size: Int, transform: (List<T>) -> R): List<R> {\n    return windowed(size, size, partialWindows = true, transform = transform)\n}\n\n/**\n * Returns a list containing all elements of the original collection without the first occurrence of the given [element].\n *\n\npublic operator fun <T> Iterable<T>.minus(element: T): List<T> {\n    val result = ArrayList<T>(collectionSizeOrDefault(10))\n    var removed = false\n    return this.filterTo(result) { if (!removed && it == element) { removed = true; false } else true }\n}\n\n/**\n * Returns a list containing all elements of the original collection except the elements contained in the given [elements] array.\n *\n * The [elements] array may be converted to a [HashSet] to speed up the operation, thus the elements are required to have\n * a correct and stable implementation of `hashCode()` that doesn't change between successive invocations.\n *\n\npublic operator fun <T> Iterable<T>.minus(elements: Array<out T>): List<T> {\n    if (elements.isEmpty()) return this.toList()\n    val other = elements.toHashSet()\n    return this.filterNot { it in other }\n}\n\n/**\n * Returns a list containing all elements of the original collection except the elements contained in the given [elements] collection.\n *\n * The [elements] collection may be converted to a [HashSet] to speed up the operation, thus the elements are required to have\n * a correct and stable implementation of `hashCode()` that doesn't change between successive invocations.\n *\n\npublic operator fun <T> Iterable<T>.minus(elements: Iterable<T>): List<T> {\n    val other = elements.convertToSetForSetOperationWith(this)\n    if (other.isEmpty())\n        return this.toList()\n    return this.filterNot { it in other }\n}\n\n/**\n * Returns a list containing all elements of the original collection except the elements contained in the given [elements] sequence.\n *\n * The [elements] sequence may be converted to a [HashSet] to speed up the operation, thus the elements are required to have\n * a correct and stable implementation of `hashCode()` that doesn't change between successive invocations.\n *\n\npublic operator fun <T> Iterable<T>.minus(elements: Sequence<T>): List<T> {\n    val other = elements.toHashSet()\n    if (other.isEmpty())\n        return this.toList()\n    return this.filterNot { it in other }\n}\n\n/**\n * Returns a list containing all elements of the original collection without the first occurrence of the given [element].\n *\n\n*\n\n@kotlin.internal.InlineOnly\n\npublic inline fun <T> Iterable<T>.minusElement(element: T): List<T> {\n    return minus(element)\n}\n\n/**\n * Splits the original collection into pair of lists,\n * where *first* list contains elements for which [predicate] yielded `true`,\n * while *second* list contains elements for which [predicate] yielded `false`.\n *\n\npublic inline fun <T> Iterable<T>.partition(predicate: (T) -> Boolean): Pair<List<T>, List<T>> {\n    val first = ArrayList<T>()\n    val second = ArrayList<T>()\n    for (element in this) {\n        if (predicate(element)) {\n            first.add(element)\n        } else {\n            second.add(element)\n        }\n    }\n    return Pair(first, second)\n}\n\n/**\n * Returns a list containing all elements of the original collection and then the given [element].\n *\n\npublic operator fun <T> Iterable<T>.plus(element: T): List<T> {\n    if (this is Collection)\n        return this.plus(element)\n    val result = ArrayList<T>()\n    result.addAll(this)\n    result.add(element)\n    return

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result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then the given [element].\n
*\npublic operator fun <T> Collection<T>.plus(element: T): List<T> {\n    val result = ArrayList<T>(size + 1)\n
result.addAll(this)\n    result.add(element)\n    return result\n}\n\n/**\n * Returns a list containing all elements of the
original collection and then all elements of the given [elements] array.\n
*\npublic operator fun <T>
Iterable<T>.plus(elements: Array<out T>): List<T> {\n    if (this is Collection) return this.plus(elements)\n
    val
result = ArrayList<T>()\n    result.addAll(this)\n    result.addAll(elements)\n    return result\n}\n\n/**\n * Returns a
list containing all elements of the original collection and then all elements of the given [elements] array.\n
*\npublic
operator fun <T> Collection<T>.plus(elements: Array<out T>): List<T> {\n    val result = ArrayList<T>(this.size +
elements.size)\n    result.addAll(this)\n    result.addAll(elements)\n    return result\n}\n\n/**\n * Returns a list
containing all elements of the original collection and then all elements of the given [elements] collection.\n
*\npublic
operator fun <T> Iterable<T>.plus(elements: Iterable<T>): List<T> {\n    if (this is Collection) return
this.plus(elements)\n    val result = ArrayList<T>()\n    result.addAll(this)\n    result.addAll(elements)\n    return
result\n}\n\n/**\n * Returns a list containing all elements of the original collection and then all elements of the given
[elements] collection.\n
*\npublic operator fun <T> Collection<T>.plus(elements: Iterable<T>): List<T> {\n    if
(elements is Collection) {\n        val result = ArrayList<T>(this.size + elements.size)\n        result.addAll(this)\n
result.addAll(elements)\n        return result\n    } else {\n        val result = ArrayList<T>(this)\n
result.addAll(elements)\n        return result\n    }\n}\n\n/**\n * Returns a list containing all elements of the original
collection and then all elements of the given [elements] sequence.\n
*\npublic operator fun <T>
Iterable<T>.plus(elements: Sequence<T>): List<T> {\n    val result = ArrayList<T>()\n    result.addAll(this)\n
result.addAll(elements)\n    return result\n}\n\n/**\n * Returns a list containing all elements of the original
collection and then all elements of the given [elements] sequence.\n
*\npublic operator fun <T>
Collection<T>.plus(elements: Sequence<T>): List<T> {\n    val result = ArrayList<T>(this.size + 10)\n
result.addAll(this)\n    result.addAll(elements)\n    return result\n}\n\n/**\n * Returns a list containing all elements
of the original collection and then the given [element].\n
*\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Iterable<T>.plusElement(element: T): List<T> {\n    return plus(element)\n}\n\n/**\n * Returns a list containing all
elements of the original collection and then the given [element].\n
*\n@kotlin.internal.InlineOnly\npublic inline fun
<T> Collection<T>.plusElement(element: T): List<T> {\n    return plus(element)\n}\n\n/**\n * Returns a list of
snapshots of the window of the given [size]\n
*\nsliding along this collection with the given [step], where each\n
*\nsnapshot is a list.\n
*\nSeveral last lists may have less elements than the given [size].\n
*\nBoth [size] and
[step] must be positive and can be greater than the number of elements in this collection.\n
*\n@param size the
number of elements to take in each window\n
*\n@param step the number of elements to move the window forward
by on an each step, by default 1\n
*\n@param partialWindows controls whether or not to keep partial windows in the
end if any,\n
*\nby default `false` which means partial windows won't be preserved\n
*\n*\n@param sample
samples.collections.Sequences.Transformations.takeWindows\n
*\n@SinceKotlin("1.2")\npublic fun <T>
Iterable<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): List<List<T>> {\n
    checkWindowSizeStep(size, step)\n    if (this is RandomAccess && this is List) {\n        val thisSize = this.size\n
val result = ArrayList<List<T>>((thisSize + step - 1) / step)\n        var index = 0\n        while (index < thisSize) {\n
            val windowSize = size.coerceAtMost(thisSize - index)\n            if (windowSize < size && !partialWindows)
break\n            result.add(List(windowSize) { this[it + index] })\n            index += step\n        }\n        return result\n
    }\n    val result = ArrayList<List<T>>()\n    windowedIterator(iterator(), size, step, partialWindows, reuseBuffer =
false).forEach {\n        result.add(it)\n    }\n    return result\n}\n\n/**\n * Returns a list of results of applying the
given [transform] function to\n
*\nan each list representing a view over the window of the given [size]\n
*\nsliding
along this collection with the given [step].\n
*\nNote that the list passed to the [transform] function is ephemeral
and is valid only inside that function.\n
*\nYou should not store it or allow it to escape in some way, unless you made
a snapshot of it.\n
*\nSeveral last lists may have less elements than the given [size].\n
*\nBoth [size] and [step]
must be positive and can be greater than the number of elements in this collection.\n
*\n@param size the number of
elements to take in each window\n
*\n@param step the number of elements to move the window forward by on an
each step, by default 1\n
*\n@param partialWindows controls whether or not to keep partial windows in the end if

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    if (limit < 0 || count <= limit) {\n        buffer.appendElement(element, transform)\n    } else break\n } \n if
(limit >= 0 && count > limit) buffer.append(truncated)\n buffer.append(postfix)\n return buffer\n}\n\n/**\n *
Creates a string from all the elements separated using [separator] and using the given [prefix] and [postfix] if
supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of [limit], in which case only
the first [limit]\n * elements will be appended, followed by the [truncated] string (which defaults to "...").\n * \n *
@sample samples.collections.Collections.Transformations.joinToString\n */\npublic fun <T>
Iterable<T>.joinToString(separator: CharSequence = "|", prefix: CharSequence = "|", postfix: CharSequence =
"|", limit: Int = -1, truncated: CharSequence = "...", transform: ((T) -> CharSequence)? = null): String {\n    return
joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n}\n\n/**\n * Returns this
collection as an [Iterable].\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T> Iterable<T>.asIterable():
Iterable<T> {\n    return this\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original collection returning
its elements when being iterated.\n * \n * @sample
samples.collections.Sequences.Building.sequenceFromCollection\n */\npublic fun <T> Iterable<T>.asSequence():
Sequence<T> {\n    return Sequence { this.iterator() }\n}\n\n/**\n * Returns an average value of elements in the
collection.\n */\n@kotlin.jvm.JvmName("averageOfByte")\npublic fun Iterable<Byte>.average(): Double {\n    var
sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n
checkCountOverflow(++count)\n    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName("averageOfShort")\npublic fun
Iterable<Short>.average(): Double {\n    var sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n
sum += element\n    checkCountOverflow(++count)\n    }\n    return if (count == 0) Double.NaN else sum /
count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName("averageOfInt")\npublic fun Iterable<Int>.average(): Double {\n    var sum: Double =
0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n        checkCountOverflow(++count)\n
    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns an average value of elements in the
collection.\n */\n@kotlin.jvm.JvmName("averageOfLong")\npublic fun Iterable<Long>.average(): Double {\n    var
sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n
checkCountOverflow(++count)\n    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName("averageOfFloat")\npublic fun
Iterable<Float>.average(): Double {\n    var sum: Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n
sum += element\n    checkCountOverflow(++count)\n    }\n    return if (count == 0) Double.NaN else sum /
count\n}\n\n/**\n * Returns an average value of elements in the collection.\n */\n@kotlin.jvm.JvmName("averageOfDouble")\npublic fun Iterable<Double>.average(): Double {\n    var sum:
Double = 0.0\n    var count: Int = 0\n    for (element in this) {\n        sum += element\n
checkCountOverflow(++count)\n    }\n    return if (count == 0) Double.NaN else sum / count\n}\n\n/**\n * Returns
the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName("sumOfByte")\npublic fun
Iterable<Byte>.sum(): Int {\n    var sum: Int = 0\n    for (element in this) {\n        sum += element\n    }\n    return
sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName("sumOfShort")\npublic fun Iterable<Short>.sum(): Int {\n    var sum: Int = 0\n    for
(element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the
collection.\n */\n@kotlin.jvm.JvmName("sumOfInt")\npublic fun Iterable<Int>.sum(): Int {\n    var sum: Int = 0\n    for
(element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in
the collection.\n */\n@kotlin.jvm.JvmName("sumOfLong")\npublic fun Iterable<Long>.sum(): Long {\n    var
sum: Long = 0L\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n/**\n * Returns the
sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName("sumOfFloat")\npublic fun
Iterable<Float>.sum(): Float {\n    var sum: Float = 0.0f\n    for (element in this) {\n        sum += element\n    }\n
return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n */\n@kotlin.jvm.JvmName("sumOfDouble")\npublic fun Iterable<Double>.sum(): Double {\n    var sum: Double
= 0.0\n    for (element in this) {\n        sum += element\n    }\n    return sum\n}\n\n", "*/\r\n * Copyright 2010-2018

```

```

JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage
kotlin.collections\r\n\r\nimport kotlin.comparisons.naturalOrder\r\nimport kotlin.random.Random\r\n\r\n/** Returns
the array if it's not `null`, or an empty array otherwise. */\r\n@kotlin.internal.InlineOnly\r\npublic actual inline fun
<T> Array<out T>?.orEmpty(): Array<out T> = this ?:
emptyArray<T>()\r\n\r\n@kotlin.internal.InlineOnly\r\npublic actual inline fun <T> Collection<T>.toArray():
Array<T> = copyToArray(this)\r\n\r\n@JsName("copyToArray")\r\n@PublishedApi\r\ninternal fun <T>
copyToArray(collection: Collection<T>): Array<T> {\r\n    return if (collection.asDynamic().toArray !==
undefined)\r\n        collection.asDynamic().toArray().unsafeCast<Array<T>>()\r\n    else\r\n        copyToArrayImpl(collection).unsafeCast<Array<T>>()\r\n}\r\n\r\n@JsName("copyToArrayImpl")\r\ninternal
actual fun copyToArrayImpl(collection: Collection<*>): Array<Any?> {\r\n    val array = emptyArray<Any?>()\r\n    val
iterator = collection.iterator()\r\n    while (iterator.hasNext())\r\n        array.asDynamic().push(iterator.next())\r\n    return array\r\n}\r\n\r\n@JsName("copyToExistingArrayImpl")\r\ninternal actual fun <T>
copyToArrayImpl(collection: Collection<*>, array: Array<T>): Array<T> {\r\n    if (array.size < collection.size)\r\n        return copyToArrayImpl(collection).unsafeCast<Array<T>>()\r\n    val iterator = collection.iterator()\r\n    var
index = 0\r\n    while (iterator.hasNext()) {\r\n        array[index++] = iterator.next().unsafeCast<T>()\r\n    }\r\n    if
(index < array.size) {\r\n        array[index] = null.unsafeCast<T>()\r\n    }\r\n    return array\r\n}\r\n\r\n/**
Returns an immutable list containing only the specified object [element].\r\n */\r\npublic fun <T> listOf(element:
T): List<T> = arrayListOf(element)\r\n\r\n/**\r\n * Returns an immutable set containing only the specified object
[element].\r\n */\r\npublic fun <T> setOf(element: T): Set<T> = hashSetOf(element)\r\n\r\n/**\r\n * Returns an
immutable map, mapping only the specified key to the\r\n * specified value.\r\n */\r\npublic fun <K, V>
mapOf(pair: Pair<K, V>): Map<K, V> = hashMapOf(pair)\r\n\r\n/**\r\n * Fills the list with the provided
[value].\r\n */\r\n * Each element in the list gets replaced with the [value].\r\n */\r\n@SinceKotlin("1.2")\r\npublic
actual fun <T> MutableList<T>.fill(value: T): Unit {\r\n    for (index in 0..lastIndex) {\r\n        this[index] =
value\r\n    }\r\n}\r\n\r\n/**\r\n * Randomly shuffles elements in this list.\r\n */\r\n * See:
https://en.wikipedia.org/wiki/Fisher%20%80%93Yates\_shuffle#The\_modern\_algorithm\r\n\r\n
*/\r\n@SinceKotlin("1.2")\r\npublic actual fun <T> MutableList<T>.shuffle(): Unit =
shuffle(Random)\r\n\r\n/**\r\n * Returns a new list with the elements of this list randomly shuffled.\r\n */\r\n
*/\r\n@SinceKotlin("1.2")\r\npublic actual fun <T> Iterable<T>.shuffled(): List<T> = toMutableList().apply {
shuffle() }\r\n\r\n/**\r\n * Sorts elements in the list in-place according to their natural sort order.\r\n */\r\n * The sort
is _stable_. It means that equal elements preserve their order relative to each other after sorting.\r\n */\r\npublic
actual fun <T : Comparable<T>> MutableList<T>.sort(): Unit {\r\n    collectionsSort(this,
naturalOrder())\r\n}\r\n\r\n/**\r\n * Sorts elements in the list in-place according to the order specified with
[comparator].\r\n */\r\n * The sort is _stable_. It means that equal elements preserve their order relative to each other
after sorting.\r\n */\r\npublic actual fun <T> MutableList<T>.sortWith(comparator: Comparator<in T>): Unit {\r\n    collectionsSort(this, comparator)\r\n}\r\n\r\nprivate fun <T> collectionsSort(list: MutableList<T>, comparator:
Comparator<in T>) {\r\n    if (list.size <= 1) return\r\n    val array = copyToArray(list)\r\n    sortArrayWith(array, comparator)\r\n    for (i in 0 until array.size) {\r\n        list[i] = array[i]\r\n    }\r\n}\r\n\r\ninternal actual fun <T> arrayOfNulls(reference: Array<T>, size: Int): Array<T> {\r\n    return
arrayOfNulls<Any>(size).unsafeCast<Array<T>>()\r\n}\r\n\r\n@SinceKotlin("1.3")\r\n@PublishedApi\r\n@JsName("arrayCopy")\r\ninternal fun <T> arrayCopy(source: Array<out T>, destination: Array<in T>,
destinationOffset: Int, startIndex: Int, endIndex: Int) {\r\n    AbstractList.checkRangeIndexes(startIndex, endIndex,
source.size)\r\n    val rangeSize = endIndex - startIndex\r\n    AbstractList.checkRangeIndexes(destinationOffset,
destinationOffset + rangeSize, destination.size)\r\n    if (js("ArrayBuffer").isView(destination) &&
js("ArrayBuffer").isView(source)) {\r\n        val subrange = source.asDynamic().subarray(startIndex, endIndex)\r\n        destination.asDynamic().set(subrange, destinationOffset)\r\n    } else {\r\n        if (source !== destination ||
destinationOffset <= startIndex) {\r\n            for (index in 0 until rangeSize) {\r\n                destination[destinationOffset + index] = source[startIndex + index]\r\n            }\r\n        } else {\r\n            for (index

```





```

*public fun <K, V> Map<out K, V>.toList(): List<Pair<K, V>> {
    if (size == 0) return emptyList()
    val iterator = entries.iterator()
    if (!iterator.hasNext()) return emptyList()
    val first = iterator.next()
    if (iterator.hasNext()) return listOf(first.toPair())
    val result = ArrayList<Pair<K, V>>(size)
    result.add(first.toPair())
    do {
        result.add(iterator.next().toPair())
    } while (iterator.hasNext())
    return result
}

* Returns a single list of all elements yielded from results of [transform] function being invoked on each entry of original map.

*public inline fun <K, V, R> Map<out K, V>.flatMap(transform: (Map.Entry<K, V>) -> Iterable<R>): List<R> {
    return flatMapTo(ArrayList<R>(), transform)
}

* Appends all elements yielded from results of [transform] function being invoked on each entry of original map, to the given [destination].

*public inline fun <K, V, R, C : MutableCollection<in R>> Map<out K, V>.flatMapTo(destination: C, transform: (Map.Entry<K, V>) -> Iterable<R>): C {
    for (element in this) {
        val list = transform(element)
        destination.addAll(list)
    }
    return destination
}

* Returns a list containing the results of applying the given [transform] function to each entry in the original map.

@sample samples.collections.Maps.Transformations.mapToList
*public inline fun <K, V, R> Map<out K, V>.map(transform: (Map.Entry<K, V>) -> R): List<R> {
    return mapTo(ArrayList<R>(size), transform)
}

* Returns a list containing only the non-null results of applying the given [transform] function to each entry in the original map.

*public inline fun <K, V, R : Any> Map<out K, V>.mapNotNull(transform: (Map.Entry<K, V>) -> R?): List<R> {
    return mapNotNullTo(ArrayList<R>(), transform)
}

* Applies the given [transform] function to each entry in the original map and appends only the non-null results to the given [destination].

*public inline fun <K, V, R : Any, C : MutableCollection<in R>> Map<out K, V>.mapNotNullTo(destination: C, transform: (Map.Entry<K, V>) -> R?): C {
    forEach {
        element -> transform(element)?.let { destination.add(it) }
    }
    return destination
}

* Applies the given [transform] function to each entry of the original map and appends the results to the given [destination].

*public inline fun <K, V, R, C : MutableCollection<in R>> Map<out K, V>.mapTo(destination: C, transform: (Map.Entry<K, V>) -> R): C {
    for (item in this) {
        destination.add(transform(item))
    }
    return destination
}

* Returns `true` if all entries match the given [predicate].

@sample samples.collections.Collections.Aggregates.all
*public inline fun <K, V> Map<out K, V>.all(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {
    if (isEmpty()) return true
    for (element in this) {
        if (!predicate(element)) return false
    }
    return true
}

* Returns `true` if map has at least one entry.

@sample samples.collections.Collections.Aggregates.any
*public fun <K, V> Map<out K, V>.any(): Boolean {
    return !isEmpty()
}

* Returns `true` if at least one entry matches the given [predicate].

@sample samples.collections.Collections.Aggregates.anyWithPredicate
*public inline fun <K, V> Map<out K, V>.any(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {
    if (isEmpty()) return false
    for (element in this) {
        if (predicate(element)) return true
    }
    return false
}

* Returns the number of entries in this map.

@kotlin.internal.InlineOnly
*public inline fun <K, V> Map<out K, V>.count(): Int {
    return size
}

* Returns the number of entries matching the given [predicate].

*public inline fun <K, V> Map<out K, V>.count(predicate: (Map.Entry<K, V>) -> Boolean): Int {
    if (isEmpty()) return 0
    var count = 0
    for (element in this) {
        if (predicate(element)) ++count
    }
    return count
}

* Performs the given [action] on each entry.

@kotlin.internal.HidesMembers
*public inline fun <K, V> Map<out K, V>.forEach(action: (Map.Entry<K, V>) -> Unit): Unit {
    for (element in this) {
        action(element)
    }
}

* Returns the first entry yielding the largest value of the given function or `null` if there are no entries.

@sample samples.collections.Collections.Aggregates.maxBy
@kotlin.internal.InlineOnly
*public inline fun <K, V, R : Comparable<R>> Map<out K, V>.maxBy(selector: (Map.Entry<K, V>) -> R): Map.Entry<K, V>? {
    return entries.maxBy(selector)
}

* Returns the first entry having the largest value according to the provided [comparator] or `null` if there are no entries.

@kotlin.internal.InlineOnly
*public inline fun <K, V> Map<out K, V>.maxWith(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {
    return entries.maxWith(comparator)
}

* Returns the first entry yielding the smallest value of the given function or `null` if there are no entries.

@sample samples.collections.Collections.Aggregates.minBy
*public inline fun <K, V, R : Comparable<R>> Map<out K, V>.minBy(selector: (Map.Entry<K, V>) -> R): Map.Entry<K,

```

```

V>? {\n    return entries.minBy(selector)\n}\n\n/**\n * Returns the first entry having the smallest value according to
the provided [comparator] or `null` if there are no entries.\n */\npublic fun <K, V> Map<out K,
V>.minWith(comparator: Comparator<in Map.Entry<K, V>>): Map.Entry<K, V>? {\n    return
entries.minWith(comparator)\n}\n\n/**\n * Returns `true` if the map has no entries.\n */\n * @sample
samples.collections.Collections.Aggregates.none\n */\npublic fun <K, V> Map<out K, V>.none(): Boolean {\n
return isEmpty()\n}\n\n/**\n * Returns `true` if no entries match the given [predicate].\n */\n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n */\npublic inline fun <K, V> Map<out K,
V>.none(predicate: (Map.Entry<K, V>) -> Boolean): Boolean {\n    if (isEmpty()) return true\n    for (element in
this) if (predicate(element)) return false\n    return true\n}\n\n/**\n * Performs the given [action] on each entry and
returns the map itself afterwards.\n */\n\n@SinceKotlin("1.1")\npublic inline fun <K, V, M : Map<out K, V>>
M.onEach(action: (Map.Entry<K, V>) -> Unit): M {\n    return apply { for (element in this) action(element)
}\n}\n\n/**\n * Creates an [Iterable] instance that wraps the original map returning its entries when being iterated.\n
*/\n\n@kotlin.internal.InlineOnly\npublic inline fun <K, V> Map<out K, V>.asIterable(): Iterable<Map.Entry<K,
V>> {\n    return entries\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original map returning its entries
when being iterated.\n */\n\npublic fun <K, V> Map<out K, V>.asSequence(): Sequence<Map.Entry<K, V>> {\n
return entries.asSequence()\n}\n\n"/\n\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\n */\n\npackage
kotlin.ranges\n\n@SinceKotlin("1.1")\n@kotlin.internal.InlineOnly\npublic inline operator fun
Float.rangeTo(that: Float): ClosedFloatingPointRange<Float> =\n
this.toDouble().rangeTo(that.toDouble()).unsafeCast<ClosedFloatingPointRange<Float>>()\n\n"/\n\n * Copyright
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by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("SequencesKt")\n\npackage
kotlin.sequences\n\n/\n\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n\nimport kotlin.random.*\n\n/**\n * Returns
`true` if [element] is found in the sequence.\n */\n * The operation is _terminal_.\n */\n\npublic operator fun
<@kotlin.internal.OnlyInputTypes T> Sequence<T>.contains(element: T): Boolean {\n    return indexOf(element)
>= 0\n}\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the
[index] is out of bounds of this sequence.\n */\n * The operation is _terminal_.\n */\n * @sample
samples.collections.Collections.Elements.elementAt\n */\n\npublic fun <T> Sequence<T>.elementAt(index: Int): T
{\n    return elementAtOrElse(index) { throw IndexOutOfBoundsException("Sequence doesn't contain element at
index $index.") }\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue]
function if the [index] is out of bounds of this sequence.\n */\n * The operation is _terminal_.\n */\n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n */\n\npublic fun <T>
Sequence<T>.elementAtOrElse(index: Int, defaultValue: (Int) -> T): T {\n    if (index < 0)\n        return
defaultValue(index)\n    val iterator = iterator()\n    var count = 0\n    while (iterator.hasNext()) {\n        val element
= iterator.next()\n        if (index == count++)\n            return element\n    }\n    return
defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of
this sequence.\n */\n * The operation is _terminal_.\n */\n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n */\n\npublic fun <T>
Sequence<T>.elementAtOrNull(index: Int): T? {\n    if (index < 0)\n        return null\n    val iterator = iterator()\n
var count = 0\n    while (iterator.hasNext()) {\n        val element = iterator.next()\n        if (index == count++)\n
return element\n    }\n    return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null`
if no such element was found.\n */\n * The operation is _terminal_.\n */\n\n@kotlin.internal.InlineOnly\npublic inline
fun <T> Sequence<T>.find(predicate: (T) -> Boolean): T? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns
the last element matching the given [predicate], or `null` if no such element was found.\n */\n * The operation is
_terminal_.\n */\n\n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.findLast(predicate: (T) ->

```

```

Boolean): T? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns first element.\n * @throws
[NoSuchElementException] if the sequence is empty.\n *\n * The operation is _terminal_.\n */\npublic fun <T>
Sequence<T>.first(): T {\n    val iterator = iterator()\n    if (!iterator.hasNext())\n        throw
NoSuchElementException("Sequence is empty.")\n    return iterator.next()\n}\n\n/**\n * Returns the first element
matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n *\n * The
operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.first(predicate: (T) -> Boolean): T {\n    for
(element in this) if (predicate(element)) return element\n    throw NoSuchElementException("Sequence contains no
element matching the predicate.")\n}\n\n/**\n * Returns the first element, or `null` if the sequence is empty.\n *\n *
The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.firstOrNull(): T? {\n    val iterator = iterator()\n    if
(!iterator.hasNext())\n        return null\n    return iterator.next()\n}\n\n/**\n * Returns the first element matching the
given [predicate], or `null` if element was not found.\n *\n * The operation is _terminal_.\n */\npublic inline fun
<T> Sequence<T>.firstOrNull(predicate: (T) -> Boolean): T? {\n    for (element in this) if (predicate(element))
return element\n    return null\n}\n\n/**\n * Returns first index of [element], or -1 if the sequence does not contain
element.\n *\n * The operation is _terminal_.\n */\npublic fun <@kotlin.internal.OnlyInputTypes T>
Sequence<T>.indexOf(element: T): Int {\n    var index = 0\n    for (item in this) {\n
        checkIndexOverflow(index)\n        if (element == item)\n            return index\n        index++\n    }\n    return -
1\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the sequence does not
contain such element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T>
Sequence<T>.indexOfFirst(predicate: (T) -> Boolean): Int {\n    var index = 0\n    for (item in this) {\n
        checkIndexOverflow(index)\n        if (predicate(item))\n            return index\n        index++\n    }\n    return -
1\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the sequence does not
contain such element.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T>
Sequence<T>.indexOfLast(predicate: (T) -> Boolean): Int {\n    var lastIndex = -1\n    var index = 0\n    for (item in
this) {\n        checkIndexOverflow(index)\n        if (predicate(item))\n            lastIndex = index\n            index++\n
    }\n    return lastIndex\n}\n\n/**\n * Returns the last element.\n * @throws [NoSuchElementException] if the
sequence is empty.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.last(): T {\n    val
iterator = iterator()\n    if (!iterator.hasNext())\n        throw NoSuchElementException("Sequence is empty.")\n    var
last = iterator.next()\n    while (iterator.hasNext())\n        last = iterator.next()\n    return last\n}\n\n/**\n *
Returns the last element matching the given [predicate].\n * @throws [NoSuchElementException] if no such
element is found.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T> Sequence<T>.last(predicate: (T) -
> Boolean): T {\n    var last: T? = null\n    var found = false\n    for (element in this) {\n        if (predicate(element))
{\n            last = element\n            found = true\n        }\n    }\n    if (!found) throw
NoSuchElementException("Sequence contains no element matching the predicate.")\n}\n\n/**\n * Returns last index of [element], or -1 if the
sequence does not contain element.\n *\n * The operation is _terminal_.\n */\npublic fun
<@kotlin.internal.OnlyInputTypes T> Sequence<T>.lastIndexOf(element: T): Int {\n    var lastIndex = -1\n    var
index = 0\n    for (item in this) {\n        checkIndexOverflow(index)\n        if (element == item)\n            lastIndex =
index\n            index++\n    }\n    return lastIndex\n}\n\n/**\n * Returns the last element, or `null` if the sequence is
empty.\n *\n * The operation is _terminal_.\n */\npublic fun <T> Sequence<T>.lastOrNull(): T? {\n    val iterator =
iterator()\n    if (!iterator.hasNext())\n        return null\n    var last = iterator.next()\n    while (iterator.hasNext())\n
last = iterator.next()\n    return last\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if
no such element was found.\n *\n * The operation is _terminal_.\n */\npublic inline fun <T>
Sequence<T>.lastOrNull(predicate: (T) -> Boolean): T? {\n    var last: T? = null\n    for (element in this) {\n        if
(predicate(element)) {\n            last = element\n        }\n    }\n    return last\n}\n\n/**\n * Returns the single element,
or throws an exception if the sequence is empty or has more than one element.\n *\n * The operation is _terminal_.\n
*/\npublic fun <T> Sequence<T>.single(): T {\n    val iterator = iterator()\n    if (!iterator.hasNext())\n        throw
NoSuchElementException("Sequence is empty.")\n    val single = iterator.next()\n    if (iterator.hasNext())\n        throw
IllegalArgumentException("Sequence has more than one element.")\n    return single\n}\n\n/**\n * Returns

```

the single element matching the given [predicate], or throws exception if there is no or more than one matching element.

```

    * The operation is _terminal_.
    * \n * \n public inline fun <T> Sequence<T>.single(predicate: (T) -> Boolean): T {
    \n   var single: T? = null
    \n   var found = false
    \n   for (element in this) {
    \n     if (predicate(element))
    \n       if (found) throw IllegalArgumentException("Sequence contains more than one matching element.")
    \n     single = element
    \n     found = true
    \n   }
    \n   if (!found) throw NoSuchElementException("Sequence contains no element matching the predicate.")
    \n   @Suppress("UNCHECKED_CAST")
    \n   return single as T
    \n }
    \n * Returns single element, or `null` if the sequence is empty or has more than one element.
    * The operation is _terminal_.
    * \n * \n public fun <T> Sequence<T>.singleOrNull(): T? {
    \n   val iterator = iterator()
    \n   if (!iterator.hasNext())
    \n     return null
    \n   val single = iterator.next()
    \n   if (iterator.hasNext())
    \n     return null
    \n   return single
    \n }
    \n * Returns the single element matching the given [predicate], or `null` if element was not found or more than one element was found.
    * The operation is _terminal_.
    * \n * \n public inline fun <T> Sequence<T>.singleOrNull(predicate: (T) -> Boolean): T? {
    \n   var single: T? = null
    \n   var found = false
    \n   for (element in this) {
    \n     if (predicate(element)) {
    \n       if (found) return null
    \n       single = element
    \n       found = true
    \n     }
    \n   }
    \n   if (!found) return null
    \n   return single
    \n }
    \n * Returns a sequence containing all elements except first [n] elements.
    * The operation is _intermediate_ and _stateless_.
    * \n * \n * @throws IllegalArgumentException if [n] is negative.
    * \n * \n * @sample
    \n samples.collections.Collections.Transformations.drop
    * \n * \n public fun <T> Sequence<T>.drop(n: Int): Sequence<T> {
    \n   require(n >= 0) { "Requested element count $n is less than zero." }
    \n   return when {
    \n     n == 0 -> this
    \n     this is DropTakeSequence -> this.drop(n)
    \n     else -> DropSequence(this, n)
    \n   }
    \n }
    \n * Returns a sequence containing all elements except first elements that satisfy the given [predicate].
    * The operation is _intermediate_ and _stateless_.
    * \n * \n * @sample
    \n samples.collections.Collections.Transformations.drop
    * \n * \n public fun <T> Sequence<T>.dropWhile(predicate: (T) -> Boolean): Sequence<T> {
    \n   return DropWhileSequence(this, predicate)
    \n }
    \n * Returns a sequence containing only elements matching the given [predicate].
    * The operation is _intermediate_ and _stateless_.
    * \n * \n * \n public fun <T> Sequence<T>.filter(predicate: (T) -> Boolean): Sequence<T> {
    \n   return FilteringSequence(this, true, predicate)
    \n }
    \n * Returns a sequence containing only elements matching the given [predicate].
    * @param [predicate] function that takes the index of an element and the element itself
    * and returns the result of predicate evaluation on the element.
    * The operation is _intermediate_ and _stateless_.
    * \n * \n * \n public fun <T> Sequence<T>.filterIndexed(predicate: (index: Int, T) -> Boolean): Sequence<T> {
    \n   // TODO: Rewrite with generalized MapFilterIndexingSequence
    \n   return TransformingSequence(
    \n     FilteringSequence(
    \n       IndexingSequence(this), true, { predicate(it.index, it.value) }
    \n     ), { it.value }
    \n   )
    \n }
    \n * Appends all elements matching the given [predicate] to the given [destination].
    * @param [predicate] function that takes the index of an element and the element itself
    * and returns the result of predicate evaluation on the element.
    * The operation is _terminal_.
    * \n * \n * \n public inline fun <T, C : MutableCollection<in T>> Sequence<T>.filterIndexedTo(destination: C, predicate: (index: Int, T) -> Boolean): C {
    \n   forEachIndexed { index, element ->
    \n     if (predicate(index, element)) destination.add(element)
    \n   }
    \n   return destination
    \n }
    \n * Returns a sequence containing all elements that are instances of specified type parameter R.
    * The operation is _intermediate_ and _stateless_.
    * \n * \n * \n public inline fun <reified R> Sequence<*>.filterIsInstance(): Sequence<@kotlin.internal.NoInfer R> {
    \n   @Suppress("UNCHECKED_CAST")
    \n   return filter { it is R } as Sequence<R>
    \n }
    \n * Appends all elements that are instances of specified type parameter R to the given [destination].
    * The operation is _terminal_.
    * \n * \n * \n public inline fun <reified R, C : MutableCollection<in R>> Sequence<*>.filterIsInstanceTo(destination: C): C {
    \n   for (element in this) if (element is R) destination.add(element)
    \n   return destination
    \n }
    \n * Returns a sequence containing all elements not matching the given [predicate].
    * The operation is _intermediate_ and _stateless_.
    * \n * \n * \n public fun <T> Sequence<T>.filterNot(predicate: (T) -> Boolean): Sequence<T> {
    \n   return FilteringSequence(this, false, predicate)
    \n }
    \n * Returns a sequence containing all elements that are not `null`.
    * The operation is _intermediate_ and _stateless_.
    * \n * \n * \n public fun <T : Any> Sequence<T?>.filterNotNull(): Sequence<T> {
    \n

```

```

@Suppress("UNCHECKED_CAST")\n    return filterNot { it == null } as Sequence<T>\n}\n\n/**\n * Appends all
elements that are not `null` to the given [destination].\n * \n * The operation is _terminal_.\n */\npublic fun <C :
MutableCollection<in T>, T : Any> Sequence<T?>.filterNotNullTo(destination: C): C {\n    for (element in this) if
(element != null) destination.add(element)\n    return destination\n}\n\n/**\n * Appends all elements not matching
the given [predicate] to the given [destination].\n * \n * The operation is _terminal_.\n */\npublic inline fun <T, C :
MutableCollection<in T>> Sequence<T>.filterNotTo(destination: C, predicate: (T) -> Boolean): C {\n    for
(element in this) if (!predicate(element)) destination.add(element)\n    return destination\n}\n\n/**\n * Appends all
elements matching the given [predicate] to the given [destination].\n * \n * The operation is _terminal_.\n */\npublic
inline fun <T, C : MutableCollection<in T>> Sequence<T>.filterTo(destination: C, predicate: (T) -> Boolean): C
{\n    for (element in this) if (predicate(element)) destination.add(element)\n    return destination\n}\n\n/**\n *
Returns a sequence containing first [n] elements.\n * \n * The operation is _intermediate_ and _stateless_.\n * \n *
@throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.take\n */\npublic fun <T> Sequence<T>.take(n: Int): Sequence<T>
{\n    require(n >= 0) { "Requested element count $n is less than zero." }\n    return when {\n        n == 0 ->
emptySequence()\n        this is DropTakeSequence -> this.take(n)\n        else -> TakeSequence(this, n)\n    }\n}\n\n/**\n * Returns a sequence containing first elements satisfying the given [predicate].\n * \n * The operation
is _intermediate_ and _stateless_.\n * \n * @sample samples.collections.Collections.Transformations.take\n */\npublic
fun <T> Sequence<T>.takeWhile(predicate: (T) -> Boolean): Sequence<T> {\n    return
TakeWhileSequence(this, predicate)\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted
according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements preserve their order
relative to each other after sorting.\n * \n * The operation is _intermediate_ and _stateful_.\n */\npublic fun <T :
Comparable<T>> Sequence<T>.sorted(): Sequence<T> {\n    return object : Sequence<T> {\n        override fun
iterator(): Iterator<T> {\n            val sortedList = this@sorted.toMutableList()\n            sortedList.sort()\n            return sortedList.iterator()\n        }\n    }\n}\n\n/**\n * Returns a sequence that yields elements of this sequence
sorted according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is
_stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * The operation
is _intermediate_ and _stateful_.\n */\npublic inline fun <T, R : Comparable<R>>
Sequence<T>.sortedBy(crossinline selector: (T) -> R?): Sequence<T> {\n    return
sortedWith(compareBy(selector))\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted
descending according to natural sort order of the value returned by specified [selector] function.\n * \n * The sort is
_stable_. It means that equal elements preserve their order relative to each other after sorting.\n * \n * The operation
is _intermediate_ and _stateful_.\n */\npublic inline fun <T, R : Comparable<R>>
Sequence<T>.sortedByDescending(crossinline selector: (T) -> R?): Sequence<T> {\n    return
sortedWith(compareByDescending(selector))\n}\n\n/**\n * Returns a sequence that yields elements of this sequence
sorted descending according to their natural sort order.\n * \n * The sort is _stable_. It means that equal elements
preserve their order relative to each other after sorting.\n * \n * The operation is _intermediate_ and _stateful_.\n */\npublic
fun <T : Comparable<T>> Sequence<T>.sortedDescending(): Sequence<T> {\n    return
sortedWith(reverseOrder())\n}\n\n/**\n * Returns a sequence that yields elements of this sequence sorted according
to the specified [comparator].\n * \n * The sort is _stable_. It means that equal elements preserve their order relative
to each other after sorting.\n * \n * The operation is _intermediate_ and _stateful_.\n */\npublic fun <T>
Sequence<T>.sortedWith(comparator: Comparator<in T>): Sequence<T> {\n    return object : Sequence<T> {\n        override fun
iterator(): Iterator<T> {\n            val sortedList = this@sortedWith.toMutableList()\n            sortedList.sortWith(comparator)\n            return sortedList.iterator()\n        }\n    }\n}\n\n/**\n * Returns a [Map]
containing key-value pairs provided by [transform] function\n * applied to elements of the given sequence.\n * \n *
If any of two pairs would have the same key the last one gets added to the map.\n * \n * The returned map preserves
the entry iteration order of the original sequence.\n * \n * The operation is _terminal_.\n */\npublic inline fun <T, K,
V> Sequence<T>.associate(transform: (T) -> Pair<K, V>): Map<K, V> {\n    return
associateTo(LinkedHashMap<K, V>(), transform)\n}\n\n/**\n * Returns a [Map] containing the elements from the

```



preserves the element iteration order of the original sequence.

```

    * The operation is _terminal_
    *
    public fun
    <T> Sequence<T>.toSet(): Set<T> {
    \n    return
    toCollection(LinkedHashSet<T>()).optimizeReadOnlySet()
    }
    **
    * Returns a single sequence of all elements
    from results of [transform] function being invoked on each element of original sequence.
    *
    * The operation is
    _intermediate_ and _stateless_
    *
    public fun <T, R> Sequence<T>.flatMap(transform: (T) -> Sequence<R>):
    Sequence<R> {
    \n    return FlatteningSequence(this, transform, { it.iterator() })
    }
    **
    * Appends all elements
    yielded from results of [transform] function being invoked on each element of original sequence, to the given
    [destination].
    *
    * The operation is _terminal_
    *
    public inline fun <T, R, C : MutableCollection<in R>>
    Sequence<T>.flatMapTo(destination: C, transform: (T) -> Sequence<R>): C {
    \n    for (element in this) {
    \n        val
    list = transform(element)
    \n        destination.addAll(list)
    \n    }
    \n    return destination
    }
    **
    * Groups elements of
    the original sequence by the key returned by the given [keySelector] function
    * applied to each element and
    returns a map where each group key is associated with a list of corresponding elements.
    *
    * The returned map
    preserves the entry iteration order of the keys produced from the original sequence.
    *
    * The operation is
    _terminal_
    *
    * @sample samples.collections.Collections.Transformations.groupBy
    *
    public inline fun <T,
    K> Sequence<T>.groupBy(keySelector: (T) -> K): Map<K, List<T>> {
    \n    return groupByTo(LinkedHashMap<K,
    MutableList<T>>(), keySelector)
    }
    **
    * Groups values returned by the [valueTransform] function applied to
    each element of the original sequence
    * by the key returned by the given [keySelector] function applied to the
    element
    * and returns a map where each group key is associated with a list of corresponding values.
    *
    * The
    returned map preserves the entry iteration order of the keys produced from the original sequence.
    *
    * The
    operation is _terminal_
    *
    * @sample
    samples.collections.Collections.Transformations.groupByKeysAndValues
    *
    public inline fun <T, K, V>
    Sequence<T>.groupBy(keySelector: (T) -> K, valueTransform: (T) -> V): Map<K, List<V>> {
    \n    return
    groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)
    }
    **
    * Groups elements
    of the original sequence by the key returned by the given [keySelector] function
    * applied to each element and
    puts to the [destination] map each group key associated with a list of corresponding elements.
    *
    * @return The
    [destination] map.
    *
    * The operation is _terminal_
    *
    * @sample
    samples.collections.Collections.Transformations.groupBy
    *
    public inline fun <T, K, M : MutableMap<in K,
    MutableList<T>>> Sequence<T>.groupByTo(destination: M, keySelector: (T) -> K): M {
    \n    for (element in this)
    {
    \n        val key = keySelector(element)
    \n        val list = destination.getOrPut(key) { ArrayList<T>() }
    \n
    list.add(element)
    \n    }
    \n    return destination
    }
    **
    * Groups values returned by the [valueTransform] function
    applied to each element of the original sequence
    * by the key returned by the given [keySelector] function applied
    to the element
    * and puts to the [destination] map each group key associated with a list of corresponding values.
    *
    *
    * @return The [destination] map.
    *
    * The operation is _terminal_
    *
    * @sample
    samples.collections.Collections.Transformations.groupByKeysAndValues
    *
    public inline fun <T, K, V, M :
    MutableMap<in K, MutableList<V>>> Sequence<T>.groupByTo(destination: M, keySelector: (T) -> K,
    valueTransform: (T) -> V): M {
    \n    for (element in this) {
    \n        val key = keySelector(element)
    \n        val list =
    destination.getOrPut(key) { ArrayList<V>() }
    \n        list.add(valueTransform(element))
    \n    }
    \n    return
    destination
    }
    **
    * Creates a [Grouping] source from a sequence to be used later with one of group-and-fold
    operations
    * using the specified [keySelector] function to extract a key from each element.
    *
    * The operation is
    _intermediate_ and _stateless_
    *
    * @sample samples.collections.Grouping.groupingByEachCount
    *
    * @SinceKotlin("1.1")
    *
    public inline fun <T, K> Sequence<T>.groupingBy(crossinline keySelector: (T) -> K):
    Grouping<T, K> {
    \n    return object : Grouping<T, K> {
    \n        override fun sourceIterator(): Iterator<T> =
    this@groupingBy.iterator()
    \n        override fun keyOf(element: T): K = keySelector(element)
    \n    }
    }
    **
    * Returns a sequence containing the results of applying the given [transform] function
    * to each element in the
    original sequence.
    *
    * The operation is _intermediate_ and _stateless_
    *
    * @sample
    samples.collections.Collections.Transformations.map
    *
    public fun <T, R> Sequence<T>.map(transform: (T) ->
    R): Sequence<R> {
    \n    return TransformingSequence(this, transform)
    }
    **
    * Returns a sequence containing
    the results of applying the given [transform] function
    * to each element and its index in the original sequence.
    *

```

@param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*\n \* The operation is `_intermediate_` and `_stateless_`.\n \*\n \* public fun <T, R> Sequence<T>.mapIndexed(transform: (index: Int, T) -> R): Sequence<R> {\n \* return TransformingIndexedSequence(this, transform)\n \*}\n \*\n \* Returns a sequence containing only the non-null results of applying the given [transform] function\n \* to each element and its index in the original sequence.\n \*

@param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*\n \* The operation is `_intermediate_` and `_stateless_`.\n \*\n \* public fun <T, R : Any> Sequence<T>.mapIndexedNotNull(transform: (index: Int, T) -> R?): Sequence<R> {\n \* return TransformingIndexedSequence(this, transform).filterNotNull()\n \*}\n \*\n \* Applies the given [transform] function to each element and its index in the original sequence\n \* and appends only the non-null results to the given [destination].\n \*

@param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*\n \* The operation is `_terminal_`.\n \*\n \* public inline fun <T, R : Any, C : MutableCollection<in R>> Sequence<T>.mapIndexedNotNullTo(destination: C, transform: (index: Int, T) -> R?): C {\n \* forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }\n \* return destination\n \*}\n \*\n \* Applies the given [transform] function to each element and its index in the original sequence\n \* and appends the results to the given [destination].\n \*

@param [transform] function that takes the index of an element and the element itself\n \* and returns the result of the transform applied to the element.\n \*\n \* The operation is `_terminal_`.\n \*\n \* public inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.mapIndexedTo(destination: C, transform: (index: Int, T) -> R): C {\n \* var index = 0\n \* for (item in this)\n \* destination.add(transform(checkIndexOverflow(index++), item))\n \* return destination\n \*}\n \*\n \* Returns a sequence containing only the non-null results of applying the given [transform] function\n \* to each element in the original sequence.\n \*\n \* The operation is `_intermediate_` and `_stateless_`.\n \*\n \* public fun <T, R : Any> Sequence<T>.mapNotNull(transform: (T) -> R?): Sequence<R> {\n \* return TransformingSequence(this, transform).filterNotNull()\n \*}\n \*\n \* Applies the given [transform] function to each element in the original sequence\n \* and appends only the non-null results to the given [destination].\n \*

The operation is `_terminal_`.\n \*\n \* public inline fun <T, R : Any, C : MutableCollection<in R>> Sequence<T>.mapNotNullTo(destination: C, transform: (T) -> R?): C {\n \* forEach { element -> transform(element)?.let { destination.add(it) } }\n \* return destination\n \*}\n \*\n \* Applies the given [transform] function to each element of the original sequence\n \* and appends the results to the given [destination].\n \*

The operation is `_terminal_`.\n \*\n \* public inline fun <T, R, C : MutableCollection<in R>> Sequence<T>.mapTo(destination: C, transform: (T) -> R): C {\n \* for (item in this)\n \* destination.add(transform(item))\n \* return destination\n \*}\n \*\n \* Returns a sequence that wraps each element of the original sequence\n \* into an [IndexedValue] containing the index of that element and the element itself.\n \*

The operation is `_intermediate_` and `_stateless_`.\n \*\n \* public fun <T> Sequence<T>.withIndex(): Sequence<IndexedValue<T>> {\n \* return IndexingSequence(this)\n \*}\n \*\n \* Returns a sequence containing only distinct elements from the given sequence.\n \*

The elements in the resulting sequence are in the same order as they were in the source sequence.\n \*\n \* The operation is `_intermediate_` and `_stateful_`.\n \*\n \* public fun <T> Sequence<T>.distinct(): Sequence<T> {\n \* return this.distinctBy { it }\n \*}\n \*\n \* Returns a sequence containing only elements from the given sequence\n \* having distinct keys returned by the given [selector] function.\n \*

The elements in the resulting sequence are in the same order as they were in the source sequence.\n \*\n \* The operation is `_intermediate_` and `_stateful_`.\n \*\n \* public fun <T, K> Sequence<T>.distinctBy(selector: (T) -> K): Sequence<T> {\n \* return DistinctSequence(this, selector)\n \*}\n \*\n \* Returns a mutable set containing all distinct elements from the given sequence.\n \*

The returned set preserves the element iteration order of the original sequence.\n \*\n \* The operation is `_terminal_`.\n \*\n \* public fun <T> Sequence<T>.toMutableSet(): MutableSet<T> {\n \* val set = LinkedHashSet<T>()\n \* for (item in this)\n \* set.add(item)\n \* return set\n \*}\n \*\n \* Returns `true` if all elements match the given [predicate].\n \*

The operation is `_terminal_`.\n \*\n \* @sample samples.collections.Collections.Aggregates.all\n \*\n \* public inline fun <T> Sequence<T>.all(predicate: (T) -> Boolean): Boolean {\n \* for (element in this) if (!predicate(element)) return false\n \* return true\n \*}\n \*\n \* Returns `true` if sequence has at least one element.\n \*

The operation is

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_terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.any\n * \n\npublic fun <T>
Sequence<T>.any(): Boolean {\n    return iterator().hasNext()\n}\n\n/**\n * Returns `true` if at least one element
matches the given [predicate].\n * \n * The operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n * \n\npublic inline fun <T>
Sequence<T>.any(predicate: (T) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns the number of elements in this sequence.\n * \n * The operation is
_terminal_.\n * \n\npublic fun <T> Sequence<T>.count(): Int {\n    var count = 0\n    for (element in this)
checkCountOverflow(++count)\n    return count\n}\n\n/**\n * Returns the number of elements matching the given
[predicate].\n * \n * The operation is _terminal_.\n * \n\npublic inline fun <T> Sequence<T>.count(predicate: (T) ->
Boolean): Int {\n    var count = 0\n    for (element in this) if (predicate(element)) checkCountOverflow(++count)\n
return count\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to right
to current accumulator value and each element.\n * \n * The operation is _terminal_.\n * \n\npublic inline fun <T, R>
Sequence<T>.fold(initial: R, operation: (acc: R, T) -> R): R {\n    var accumulator = initial\n    for (element in this)
accumulator = operation(accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value starting
with [initial] value and applying [operation] from left to right\n * to current accumulator value and each element
with its index in the original sequence.\n * @param [operation] function that takes the index of an element, current
accumulator value\n * and the element itself, and calculates the next accumulator value.\n * \n * The operation is
_terminal_.\n * \n\npublic inline fun <T, R> Sequence<T>.foldIndexed(initial: R, operation: (index: Int, acc: R, T) ->
R): R {\n    var index = 0\n    var accumulator = initial\n    for (element in this) accumulator =
operation(checkIndexOverflow(index++), accumulator, element)\n    return accumulator\n}\n\n/**\n * Performs the
given [action] on each element.\n * \n * The operation is _terminal_.\n * \n\npublic inline fun <T>
Sequence<T>.forEach(action: (T) -> Unit): Unit {\n    for (element in this) action(element)\n}\n\n/**\n * Performs
the given [action] on each element, providing sequential index with the element.\n * @param [action] function that
takes the index of an element and the element itself\n * and performs the desired action on the element.\n * \n * The
operation is _terminal_.\n * \n\npublic inline fun <T> Sequence<T>.forEachIndexed(action: (index: Int, T) -> Unit):
Unit {\n    var index = 0\n    for (item in this) action(checkIndexOverflow(index++), item)\n}\n\n/**\n * Returns the
largest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * The
operation is _terminal_.\n * \n\n@SinceKotlin("1.1")\npublic fun Sequence<Double>.max(): Double? {\n    val
iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max = iterator.next()\n    if (max.isNaN()) return
max\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if (e.isNaN()) return e\n        if (max < e) max
= e\n    }\n    return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n * \n * If any
of elements is `NaN` returns `NaN`.\n * \n * The operation is _terminal_.\n * \n\n@SinceKotlin("1.1")\npublic fun
Sequence<Float>.max(): Float? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max =
iterator.next()\n    if (max.isNaN()) return max\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if
(e.isNaN()) return e\n        if (max < e) max = e\n    }\n    return max\n}\n\n/**\n * Returns the largest element or
`null` if there are no elements.\n * \n * The operation is _terminal_.\n * \n\npublic fun <T : Comparable<T>>
Sequence<T>.max(): T? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max =
iterator.next()\n    while (iterator.hasNext()) {\n        val e = iterator.next()\n        if (max < e) max = e\n    }\n
return max\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or `null` if there
are no elements.\n * \n * The operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Aggregates.maxBy\n * \n\npublic inline fun <T, R : Comparable<R>>
Sequence<T>.maxBy(selector: (T) -> R): T? {\n    val iterator = iterator()\n    if (!iterator.hasNext()) return null\n
var maxElem = iterator.next()\n    if (!iterator.hasNext()) return maxElem\n    var maxValue = selector(maxElem)\n    do {\n
        val e = iterator.next()\n        val v = selector(e)\n        if (maxValue < v) {\n            maxElem = e\n           
maxValue = v\n        }\n    } while (iterator.hasNext())\n    return maxElem\n}\n\n/**\n * Returns the first element
having the largest value according to the provided [comparator] or `null` if there are no elements.\n * \n * The
operation is _terminal_.\n * \n\npublic fun <T> Sequence<T>.maxWith(comparator: Comparator<in T>): T? {\n    val
iterator = iterator()\n    if (!iterator.hasNext()) return null\n    var max = iterator.next()\n    while (iterator.hasNext())

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```

{\n    val e = iterator.next()\n    if (comparator.compare(max, e) < 0) max = e\n  }\n  return max\n}\n\nReturns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * The operation is _terminal_.\n * \n @SinceKotlin("1.1")\npublic fun Sequence<Double>.min(): Double? {\n  val iterator = iterator()\n  if (!iterator.hasNext()) return null\n  var min = iterator.next()\n  if (min.isNaN()) return min\n  while (iterator.hasNext()) {\n    val e = iterator.next()\n    if (e.isNaN()) return e\n    if (min > e) min = e\n  }\n  return min\n}\n\nReturns the smallest element or `null` if there are no elements.\n * \n * If any of elements is `NaN` returns `NaN`.\n * \n * The operation is _terminal_.\n * \n @SinceKotlin("1.1")\npublic fun Sequence<Float>.min(): Float? {\n  val iterator = iterator()\n  if (!iterator.hasNext()) return null\n  var min = iterator.next()\n  if (min.isNaN()) return min\n  while (iterator.hasNext()) {\n    val e = iterator.next()\n    if (e.isNaN()) return e\n    if (min > e) min = e\n  }\n  return min\n}\n\nReturns the smallest element or `null` if there are no elements.\n * \n * The operation is _terminal_.\n * \n @public fun <T : Comparable<T>> Sequence<T>.min(): T? {\n  val iterator = iterator()\n  if (!iterator.hasNext()) return null\n  var min = iterator.next()\n  while (iterator.hasNext()) {\n    val e = iterator.next()\n    if (min > e) min = e\n  }\n  return min\n}\n\nReturns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n * \n @public inline fun <T, R : Comparable<R>> Sequence<T>.minBy(selector: (T) -> R): T? {\n  val iterator = iterator()\n  if (!iterator.hasNext()) return null\n  var minElem = iterator.next()\n  if (!iterator.hasNext()) return minElem\n  var minValue = selector(minElem)\n  do {\n    val e = iterator.next()\n    val v = selector(e)\n    if (minValue > v) {\n      minElem = e\n      minValue = v\n    }\n  } while (iterator.hasNext())\n  return minElem\n}\n\nReturns the first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n * \n * The operation is _terminal_.\n * \n @public fun <T> Sequence<T>.minWith(comparator: Comparator<in T>): T? {\n  val iterator = iterator()\n  if (!iterator.hasNext()) return null\n  var min = iterator.next()\n  while (iterator.hasNext()) {\n    val e = iterator.next()\n    if (comparator.compare(min, e) > 0) min = e\n  }\n  return min\n}\n\nReturns `true` if the sequence has no elements.\n * \n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.none\n * \n @public fun <T> Sequence<T>.none(): Boolean {\n  return !iterator().hasNext()\n}\n\nReturns `true` if no elements match the given [predicate].\n * \n * The operation is _terminal_.\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n * \n @public inline fun <T> Sequence<T>.none(predicate: (T) -> Boolean): Boolean {\n  for (element in this) if (predicate(element)) return false\n  return true\n}\n\nReturns a sequence which performs the given [action] on each element of the original sequence as they pass through it.\n * \n * The operation is _intermediate_ and _stateless_.\n * \n @SinceKotlin("1.1")\npublic fun <T> Sequence<T>.onEach(action: (T) -> Unit): Sequence<T> {\n  return map {\n    action(it)\n    it\n  }\n}\n\nAccumulates value starting with the first element and applying [operation] from left to right to current accumulator value and each element.\n * \n * The operation is _terminal_.\n * \n @public inline fun <S, T : S> Sequence<T>.reduce(operation: (acc: S, T) -> S): S {\n  val iterator = this.iterator()\n  if (!iterator.hasNext()) throw UnsupportedOperationException("Empty sequence can't be reduced.")\n  var accumulator: S = iterator.next()\n  while (iterator.hasNext()) {\n    accumulator = operation(accumulator, iterator.next())\n  }\n  return accumulator\n}\n\nAccumulates value starting with the first element and applying [operation] from left to right\n * to current accumulator value and each element with its index in the original sequence.\n * \n @param [operation] function that takes the index of an element, current accumulator value\n * and the element itself and calculates the next accumulator value.\n * \n * The operation is _terminal_.\n * \n @public inline fun <S, T : S> Sequence<T>.reduceIndexed(operation: (index: Int, acc: S, T) -> S): S {\n  val iterator = this.iterator()\n  if (!iterator.hasNext()) throw UnsupportedOperationException("Empty sequence can't be reduced.")\n  var index = 1\n  var accumulator: S = iterator.next()\n  while (iterator.hasNext()) {\n    accumulator = operation(checkIndexOverflow(index++), accumulator, iterator.next())\n  }\n  return accumulator\n}\n\nReturns the sum of all values produced by [selector] function applied to each element in the sequence.\n * \n * The operation is _terminal_.\n * \n @public inline fun <T> Sequence<T>.sumBy(selector: (T) -> Int): Int {\n  var sum: Int = 0\n  for (element in this) {\n    sum += selector(element)\n  }\n  return

```

`sum` Returns the sum of all values produced by [selector] function applied to each element in the sequence.
   
 The operation is `_terminal_`.
   

```

public inline fun <T> Sequence<T>.sumByDouble(selector: (T) -> Double): Double {
    var sum: Double = 0.0
    for (element in this) {
        sum += selector(element)
    }
    return sum
}

```

 Returns an original collection containing all the non-`null` elements, throwing an `IllegalArgumentException` if there are any `null` elements.
   
 The operation is `_intermediate_` and `_stateless_`.
   

```

public fun <T : Any> Sequence<T?>.requireNonNulls(): Sequence<T> {
    return map { it?.throw IllegalArgumentException("null element found in $this.") }
}

```

 Splits this sequence into a sequence of lists each not exceeding the given [size].
   
 The last list in the resulting sequence may have less elements than the given [size].
   
 @param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this sequence.
   
 The operation is `_intermediate_` and `_stateful_`.
   

```

@sample samples.collections.Collections.Transformations.chunked

```

```

@SinceKotlin("1.2")
public fun <T> Sequence<T>.chunked(size: Int): Sequence<List<T>> {
    return windowed(size, size, partialWindows = true)
}

```

 Splits this sequence into several lists each not exceeding the given [size] and applies the given [transform] function to an each.
   
 @return sequence of results of the [transform] applied to an each list.
   
 Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.
   
 You should not store it or allow it to escape in some way, unless you made a snapshot of it.
   
 The last list may have less elements than the given [size].
   
 @param size the number of elements to take in each list, must be positive and can be greater than the number of elements in this sequence.
   
 The operation is `_intermediate_` and `_stateful_`.
   

```

@sample samples.text.Strings.chunkedTransform

```

```

@SinceKotlin("1.2")
public fun <T, R> Sequence<T>.chunked(size: Int, transform: (List<T>) -> R): Sequence<R> {
    return windowed(size, size, partialWindows = true, transform = transform)
}

```

 Returns a sequence containing all elements of the original sequence without the first occurrence of the given [element].
   
 The operation is `_intermediate_` and `_stateless_`.
   

```

public operator fun <T> Sequence<T>.minus(element: T): Sequence<T> {
    return object: Sequence<T> {
        override fun iterator(): Iterator<T> {
            var removed = false
            return this@minus.filter { if (!removed && it == element) {
                removed = true; false } else true }.iterator()
        }
    }
}

```

 Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] array.
   
 Note that the source sequence and the array being subtracted are iterated only when an `iterator` is requested from the resulting sequence.
   
 Changing any of them between successive calls to `iterator` may affect the result.
   
 The [elements] array may be converted to a `HashSet` to speed up the operation, thus the elements are required to have a correct and stable implementation of `hashCode()` that doesn't change between successive invocations.
   
 The operation is `_intermediate_` and `_stateful_`.
   

```

public operator fun <T> Sequence<T>.minus(elements: Array<out T>): Sequence<T> {
    if (elements.isEmpty()) return this
    return object: Sequence<T> {
        override fun iterator(): Iterator<T> {
            val other = elements.toHashSet()
            return this@minus.filterNot { it in other }.iterator()
        }
    }
}

```

 Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] collection.
   
 Note that the source sequence and the collection being subtracted are iterated only when an `iterator` is requested from the resulting sequence.
   
 Changing any of them between successive calls to `iterator` may affect the result.
   
 The [elements] collection may be converted to a `HashSet` to speed up the operation, thus the elements are required to have a correct and stable implementation of `hashCode()` that doesn't change between successive invocations.
   
 The operation is `_intermediate_` and `_stateful_`.
   

```

public operator fun <T> Sequence<T>.minus(elements: Iterable<T>): Sequence<T> {
    return object: Sequence<T> {
        override fun iterator(): Iterator<T> {
            val other = elements.convertToSetForSetOperation()
            if (other.isEmpty()) return this@minus.iterator()
            else return this@minus.filterNot { it in other }.iterator()
        }
    }
}

```

 Returns a sequence containing all elements of original sequence except the elements contained in the given [elements] sequence.
   
 Note that the source sequence and the sequence being subtracted are iterated only when an `iterator` is requested from the resulting sequence.
   
 Changing any of them between successive calls to `iterator` may affect the result.
   
 The operation is `_intermediate_` for this sequence and `_terminal_` and `_stateful_` for the [elements] sequence.

\* \n \* The [elements] sequence may be converted to a [HashSet] to speed up the operation, thus the elements are required to have\n \* a correct and stable implementation of `hashCode()` that doesn't change between successive invocations.\n \* \npublic operator fun <T> Sequence<T>.minus(elements: Sequence<T>): Sequence<T> {\n return object: Sequence<T> {\n override fun iterator(): Iterator<T> {\n val other = elements.toHashSet()\n if (other.isEmpty())\n return this@minus.iterator()\n else\n return this@minus.filterNot { it in other }.iterator()\n } }\n }\n\n\*\*\n \* Returns a sequence containing all elements of the original sequence without the first occurrence of the given [element].\n \* \n \* The operation is \_intermediate\_ and \_stateless\_.\n \* \n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.minusElement(element: T): Sequence<T> {\n return minus(element)\n }\n\n\*\*\n \* Splits the original sequence into pair of lists,\n \* where \*first\* list contains elements for which [predicate] yielded `true`,\n \* while \*second\* list contains elements for which [predicate] yielded `false`.\n \* \n \* The operation is \_terminal\_.\n \* \npublic inline fun <T> Sequence<T>.partition(predicate: (T) -> Boolean): Pair<List<T>, List<T>> {\n val first = ArrayList<T>()\n val second = ArrayList<T>()\n for (element in this) {\n if (predicate(element)) {\n first.add(element)\n } else {\n second.add(element)\n } }\n return Pair(first, second)\n }\n\n\*\*\n \* Returns a sequence containing all elements of the original sequence and then the given [element].\n \* \n \* The operation is \_intermediate\_ and \_stateless\_.\n \* \npublic operator fun <T> Sequence<T>.plus(element: T): Sequence<T> {\n return sequenceOf(this, sequenceOf(element)).flatten()\n }\n\n\*\*\n \* Returns a sequence containing all elements of original sequence and then all elements of the given [elements] array.\n \* \n \* Note that the source sequence and the array being added are iterated only when an `iterator` is requested from\n \* the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n \* \n \* The operation is \_intermediate\_ and \_stateless\_.\n \* \npublic operator fun <T> Sequence<T>.plus(elements: Array<out T>): Sequence<T> {\n return this.plus(elements.asList())\n }\n\n\*\*\n \* Returns a sequence containing all elements of original sequence and then all elements of the given [elements] collection.\n \* \n \* Note that the source sequence and the collection being added are iterated only when an `iterator` is requested from\n \* the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n \* \n \* The operation is \_intermediate\_ and \_stateless\_.\n \* \npublic operator fun <T> Sequence<T>.plus(elements: Iterable<T>): Sequence<T> {\n return sequenceOf(this, elements.asSequence()).flatten()\n }\n\n\*\*\n \* Returns a sequence containing all elements of original sequence and then all elements of the given [elements] sequence.\n \* \n \* Note that the source sequence and the sequence being added are iterated only when an `iterator` is requested from\n \* the resulting sequence. Changing any of them between successive calls to `iterator` may affect the result.\n \* \n \* The operation is \_intermediate\_ and \_stateless\_.\n \* \npublic operator fun <T> Sequence<T>.plus(elements: Sequence<T>): Sequence<T> {\n return sequenceOf(this, elements).flatten()\n }\n\n\*\*\n \* Returns a sequence containing all elements of the original sequence and then the given [element].\n \* \n \* The operation is \_intermediate\_ and \_stateless\_.\n \* \n@kotlin.internal.InlineOnly\npublic inline fun <T> Sequence<T>.plusElement(element: T): Sequence<T> {\n return plus(element)\n }\n\n\*\*\n \* Returns a sequence of snapshots\n \* of the window of the given [size]\n \* sliding along this sequence with the given [step], where each\n \* snapshot is a list.\n \* \n \* Several last lists may have less elements than the given [size].\n \* \n \* Both [size] and [step] must be positive and can be greater than the number of elements in this sequence.\n \* \n \* @param size the number of elements to take in each window\n \* @param step the number of elements to move the window forward by on an each step, by default 1\n \* @param partialWindows controls whether or not to keep partial windows in the end if any,\n \* by default `false` which means partial windows won't be preserved\n \* \n \* @sample samples.collections.Sequences.Transformations.takeWindows\n \* \n@SinceKotlin("1.2")\npublic fun <T> Sequence<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): Sequence<List<T>> {\n return windowedSequence(size, step, partialWindows, reuseBuffer = false)\n }\n\n\*\*\n \* Returns a sequence of results of applying the given [transform] function to\n \* an each list representing a view over the window of the given [size]\n \* sliding along this sequence with the given [step].\n \* \n \* Note that the list passed to the [transform] function is ephemeral and is valid only inside that function.\n \* You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n \* Several last lists may

have less elements than the given [size].\n \* \n \* Both [size] and [step] must be positive and can be greater than the number of elements in this sequence.\n \* @param size the number of elements to take in each window\n \* @param step the number of elements to move the window forward by on an each step, by default 1\n \* @param partialWindows controls whether or not to keep partial windows in the end if any,\n \* by default `false` which means partial windows won't be preserved\n \* \n \* @sample

```

samples.collections.Sequences.Transformations.averageWindows\n * \n @SinceKotlin("1.2")\n public fun <T, R>
Sequence<T>.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false, transform: (List<T>) -> R):
Sequence<R> {\n    return windowedSequence(size, step, partialWindows, reuseBuffer =
true).map(transform)\n }\n\n\n * Returns a sequence of values built from the elements of `this` sequence and the
[other] sequence with the same index.\n * The resulting sequence ends as soon as the shortest input sequence ends.\n\n
*\n * The operation is _intermediate_ and _stateless_.\n * \n * @sample
samples.collections.Sequences.Transformations.zip\n * \n public infix fun <T, R> Sequence<T>.zip(other:
Sequence<R>): Sequence<Pair<T, R>> {\n    return MergingSequence(this, other) { t1, t2 -> t1 to t2 }\n }\n\n\n\n *
Returns a sequence of values built from the elements of `this` sequence and the [other] sequence with the same
index\n * using the provided [transform] function applied to each pair of elements.\n * The resulting sequence ends
as soon as the shortest input sequence ends.\n * \n * The operation is _intermediate_ and _stateless_.\n * \n *
@sample
samples.collections.Sequences.Transformations.zipWithTransform\n * \n public fun <T, R, V>
Sequence<T>.zip(other: Sequence<R>, transform: (a: T, b: R) -> V): Sequence<V> {\n    return
MergingSequence(this, other, transform)\n }\n\n\n\n * Returns a sequence of pairs of each two adjacent elements in
this sequence.\n * \n * The returned sequence is empty if this sequence contains less than two elements.\n * \n * The
operation is _intermediate_ and _stateless_.\n * \n * @sample
samples.collections.Collections.Transformations.zipWithNext\n * \n @SinceKotlin("1.2")\n public fun <T>
Sequence<T>.zipWithNext(): Sequence<Pair<T, T>> {\n    return zipWithNext { a, b -> a to b }\n }\n\n\n\n *
Returns a sequence containing the results of applying the given [transform] function\n * to an each pair of two
adjacent elements in this sequence.\n * \n * The returned sequence is empty if this sequence contains less than two
elements.\n * \n * The operation is _intermediate_ and _stateless_.\n * \n * @sample
samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n * \n @SinceKotlin("1.2")\n public
fun <T, R> Sequence<T>.zipWithNext(transform: (a: T, b: T) -> R): Sequence<R> {\n    return sequence result@
{\n        val iterator = iterator()\n        if (!iterator.hasNext()) return @result\n        var current = iterator.next()\n
while (iterator.hasNext()) {\n            val next = iterator.next()\n            yield(transform(current, next))\n
current = next\n        }\n    }\n }\n\n\n\n * Appends the string from all the elements separated using [separator] and
using the given [prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-
negative value of [limit], in which case only the first [limit]\n * elements will be appended, followed by the
[truncated] string (which defaults to "...").\n * \n * The operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Transformations.joinTo\n * \n public fun <T, A : Appendable>
Sequence<T>.joinTo(buffer: A, separator: CharSequence = ", ", prefix: CharSequence = "\", postfix:
CharSequence = "\", limit: Int = -1, truncated: CharSequence = "...", transform: ((T) -> CharSequence)? = null): A
{\n    buffer.append(prefix)\n    var count = 0\n    for (element in this) {\n        if (++count > 1)
buffer.append(separator)\n        if (limit < 0 || count <= limit) {\n            buffer.appendElement(element, transform)\n
        } else break\n    }\n    if (limit >= 0 && count > limit) buffer.append(truncated)\n    buffer.append(postfix)\n
return buffer\n }\n\n\n\n * Creates a string from all the elements separated using [separator] and using the given
[prefix] and [postfix] if supplied.\n * \n * If the collection could be huge, you can specify a non-negative value of
[limit], in which case only the first [limit]\n * elements will be appended, followed by the [truncated] string (which
defaults to "...").\n * \n * The operation is _terminal_.\n * \n * @sample
samples.collections.Collections.Transformations.joinToString\n * \n public fun <T>
Sequence<T>.joinToString(separator: CharSequence = ", ", prefix: CharSequence = "\", postfix: CharSequence =
\"", limit: Int = -1, truncated: CharSequence = "...", transform: ((T) -> CharSequence)? = null): String {\n    return
joinTo(StringBuilder(), separator, prefix, postfix, limit, truncated, transform).toString()\n }\n\n\n\n * Creates an

```

```

[Iterable] instance that wraps the original sequence returning its elements when being iterated.
 * public fun <T>
Sequence<T>.asIterable(): Iterable<T> {
    return Iterable { this.iterator() }
}
 * Returns this sequence as
a [Sequence].
 * @kotlin.internal.InlineOnly
 * public inline fun <T> Sequence<T>.asSequence(): Sequence<T>
{
    return this
}
 * Returns an average value of elements in the sequence.
 * The operation is _terminal_.
 * @kotlin.jvm.JvmName("averageOfByte")
 * public fun Sequence<Byte>.average(): Double {
    var sum: Double = 0.0
    var count: Int = 0
    for (element in this) {
        sum += element
        checkCountOverflow(++count)
    }
    return if (count == 0) Double.NaN else sum / count
}
 * Returns
an average value of elements in the sequence.
 * The operation is _terminal_.
 * @kotlin.jvm.JvmName("averageOfShort")
 * public fun Sequence<Short>.average(): Double {
    var sum:
Double = 0.0
    var count: Int = 0
    for (element in this) {
        sum += element
        checkCountOverflow(++count)
    }
    return if (count == 0) Double.NaN else sum / count
}
 * Returns
an average value of elements in the sequence.
 * The operation is _terminal_.
 * @kotlin.jvm.JvmName("averageOfInt")
 * public fun Sequence<Int>.average(): Double {
    var sum: Double
= 0.0
    var count: Int = 0
    for (element in this) {
        sum += element
        checkCountOverflow(++count)
    }
    return if (count == 0) Double.NaN else sum / count
}
 * Returns an average value of elements in the
sequence.
 * The operation is _terminal_.
 * @kotlin.jvm.JvmName("averageOfLong")
 * public fun
Sequence<Long>.average(): Double {
    var sum: Double = 0.0
    var count: Int = 0
    for (element in this) {
        sum += element
        checkCountOverflow(++count)
    }
    return if (count == 0) Double.NaN else sum /
count
}
 * Returns an average value of elements in the sequence.
 * The operation is _terminal_.
 * @kotlin.jvm.JvmName("averageOfFloat")
 * public fun Sequence<Float>.average(): Double {
    var sum:
Double = 0.0
    var count: Int = 0
    for (element in this) {
        sum += element
        checkCountOverflow(++count)
    }
    return if (count == 0) Double.NaN else sum / count
}
 * Returns
an average value of elements in the sequence.
 * The operation is _terminal_.
 * @kotlin.jvm.JvmName("averageOfDouble")
 * public fun Sequence<Double>.average(): Double {
    var sum:
Double = 0.0
    var count: Int = 0
    for (element in this) {
        sum += element
        checkCountOverflow(++count)
    }
    return if (count == 0) Double.NaN else sum / count
}
 * Returns
the sum of all elements in the sequence.
 * The operation is _terminal_.
 * @kotlin.jvm.JvmName("sumOfByte")
 * public fun Sequence<Byte>.sum(): Int {
    var sum: Int = 0
    for
(element in this) {
        sum += element
    }
    return sum
}
 * Returns the sum of all elements in the
sequence.
 * The operation is _terminal_.
 * @kotlin.jvm.JvmName("sumOfShort")
 * public fun
Sequence<Short>.sum(): Int {
    var sum: Int = 0
    for (element in this) {
        sum += element
    }
    return
sum
}
 * Returns the sum of all elements in the sequence.
 * The operation is _terminal_.
 * @kotlin.jvm.JvmName("sumOfInt")
 * public fun Sequence<Int>.sum(): Int {
    var sum: Int = 0
    for
(element in this) {
        sum += element
    }
    return sum
}
 * Returns the sum of all elements in the
sequence.
 * The operation is _terminal_.
 * @kotlin.jvm.JvmName("sumOfLong")
 * public fun
Sequence<Long>.sum(): Long {
    var sum: Long = 0L
    for (element in this) {
        sum += element
    }
    return sum
}
 * Returns the sum of all elements in the sequence.
 * The operation is _terminal_.
 * @kotlin.jvm.JvmName("sumOfFloat")
 * public fun Sequence<Float>.sum(): Float {
    var sum: Float = 0.0f
    for
(element in this) {
        sum += element
    }
    return sum
}
 * Returns the sum of all elements in
the sequence.
 * The operation is _terminal_.
 * @kotlin.jvm.JvmName("sumOfDouble")
 * public fun
Sequence<Double>.sum(): Double {
    var sum: Double = 0.0
    for (element in this) {
        sum += element
    }
    return sum
}
 * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language
contributors.
 * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.
 *
 * @file:kotlin.jvm.JvmMultifileClass
 * @file:kotlin.jvm.JvmName("SetsKt")
 * @package
kotlin.collections
 * // NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt
 * // See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib
 * //
 * // import kotlin.random.*
 * // import
kotlin.ranges.contains
 * // import kotlin.ranges.reversed
 * //
 * // Returns a set containing all elements of the original

```

```

set except the given [element].\n * \n * The returned set preserves the element iteration order of the original set.\n
*\npublic operator fun <T> Set<T>.minus(element: T): Set<T> {\n    val result =
LinkedHashSet<T>(mapCapacity(size))\n    var removed = false\n    return this.filterTo(result) { if (!removed && it
== element) { removed = true; false } else true }\n}\n\n/**\n * Returns a set containing all elements of the original
set except the elements contained in the given [elements] array.\n * \n * The returned set preserves the element
iteration order of the original set.\n * \n * The [elements] array may be converted to a [HashSet] to speed up the
operation, thus the elements are required to have\n * a correct and stable implementation of `hashCode()` that
doesn't change between successive invocations.\n */\npublic operator fun <T> Set<T>.minus(elements: Array<out
T>): Set<T> {\n    val result = LinkedHashSet<T>(this)\n    result.removeAll(elements)\n    return result\n}\n\n/**\n * Returns a set containing all elements of the original set except the elements contained in the given [elements]
collection.\n * \n * The returned set preserves the element iteration order of the original set.\n * \n * The [elements]
collection may be converted to a [HashSet] to speed up the operation, thus the elements are required to have\n * a
correct and stable implementation of `hashCode()` that doesn't change between successive invocations.\n */\npublic
operator fun <T> Set<T>.minus(elements: Iterable<T>): Set<T> {\n    val other =
elements.convertToSetForSetOperationWith(this)\n    if (other.isEmpty())\n        return this.toSet()\n    if (other is
Set)\n        return this.filterNotTo(LinkedHashSet<T>()) { it in other }\n    val result = LinkedHashSet<T>(this)\n
result.removeAll(other)\n    return result\n}\n\n/**\n * Returns a set containing all elements of the original set
except the elements contained in the given [elements] sequence.\n * \n * The returned set preserves the element
iteration order of the original set.\n * \n * The [elements] sequence may be converted to a [HashSet] to speed up the
operation, thus the elements are required to have\n * a correct and stable implementation of `hashCode()` that
doesn't change between successive invocations.\n */\npublic operator fun <T> Set<T>.minus(elements:
Sequence<T>): Set<T> {\n    val result = LinkedHashSet<T>(this)\n    result.removeAll(elements)\n    return
result\n}\n\n/**\n * Returns a set containing all elements of the original set except the given [element].\n * \n * The
returned set preserves the element iteration order of the original set.\n */\n@kotlin.internal.InlineOnly\npublic inline
fun <T> Set<T>.minusElement(element: T): Set<T> {\n    return minus(element)\n}\n\n/**\n * Returns a set
containing all elements of the original set and then the given [element] if it isn't already in this set.\n * \n * The
returned set preserves the element iteration order of the original set.\n */\npublic operator fun <T>
Set<T>.plus(element: T): Set<T> {\n    val result = LinkedHashSet<T>(mapCapacity(size + 1))\n
result.addAll(this)\n    result.add(element)\n    return result\n}\n\n/**\n * Returns a set containing all elements of the
original set and the given [elements] array,\n * which aren't already in this set.\n * \n * The returned set preserves
the element iteration order of the original set.\n */\npublic operator fun <T> Set<T>.plus(elements: Array<out T>):
Set<T> {\n    val result = LinkedHashSet<T>(mapCapacity(this.size + elements.size))\n    result.addAll(this)\n
result.addAll(elements)\n    return result\n}\n\n/**\n * Returns a set containing all elements of the original set and
the given [elements] collection,\n * which aren't already in this set.\n * \n * The returned set preserves the element
iteration order of the original set.\n */\npublic operator fun <T> Set<T>.plus(elements: Iterable<T>): Set<T> {\n
val result = LinkedHashSet<T>(mapCapacity(elements.collectionSizeOrNull()?.let { this.size + it } ?: this.size *
2))\n    result.addAll(this)\n    result.addAll(elements)\n    return result\n}\n\n/**\n * Returns a set containing all
elements of the original set and the given [elements] sequence,\n * which aren't already in this set.\n * \n * The
returned set preserves the element iteration order of the original set.\n */\npublic operator fun <T>
Set<T>.plus(elements: Sequence<T>): Set<T> {\n    val result = LinkedHashSet<T>(mapCapacity(this.size * 2))\n
result.addAll(this)\n    result.addAll(elements)\n    return result\n}\n\n/**\n * Returns a set containing all elements of
the original set and then the given [element] if it isn't already in this set.\n * \n * The returned set preserves the
element iteration order of the original set.\n */\n@kotlin.internal.InlineOnly\npublic inline fun <T>
Set<T>.plusElement(element: T): Set<T> {\n    return plus(element)\n}\n\n", "/*\n * Copyright 2010-2019 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("StringsKt")\n\npackage
kotlin.text\n\n/\n\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:

```

```

https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\n\nimport kotlin.random.*\n\n/**\n * Returns a character at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n */\npublic expect fun CharSequence.elementAt(index: Int): Char\n\n/**\n * Returns a character at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrElse\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.elementAtOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n    return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns a character at the given [index] or `null` if the [index] is out of bounds of this char sequence.\n * \n * @sample samples.collections.Collections.Elements.elementAtOrNull\n */\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.elementAtOrNull(index: Int): Char? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns the first character matching the given [predicate], or `null` if no such character was found.\n * \n * @kotlin.internal.InlineOnly\npublic inline fun CharSequence.find(predicate: (Char) -> Boolean): Char? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns the last character matching the given [predicate], or `null` if no such character was found.\n * \n * @kotlin.internal.InlineOnly\npublic inline fun CharSequence.findLast(predicate: (Char) -> Boolean): Char? {\n    return lastOrNull(predicate)\n}\n\n/**\n * Returns first character.\n * @throws [NoSuchElementException] if the char sequence is empty.\n */\npublic fun CharSequence.first(): Char {\n    if (isEmpty())\n        throw NoSuchElementException("Char sequence is empty.")\n    return this[0]\n}\n\n/**\n * Returns the first character matching the given [predicate].\n * @throws [NoSuchElementException] if no such character is found.\n */\npublic inline fun CharSequence.first(predicate: (Char) -> Boolean): Char {\n    for (element in this) if (predicate(element)) return element\n    throw NoSuchElementException("Char sequence contains no character matching the predicate.")\n}\n\n/**\n * Returns the first character, or `null` if the char sequence is empty.\n */\npublic fun CharSequence.firstOrNull(): Char? {\n    return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first character matching the given [predicate], or `null` if character was not found.\n */\npublic inline fun CharSequence.firstOrNull(predicate: (Char) -> Boolean): Char? {\n    for (element in this) if (predicate(element)) return element\n    return null\n}\n\n/**\n * Returns a character at the given [index] or the result of calling the [defaultValue] function if the [index] is out of bounds of this char sequence.\n * \n * @kotlin.internal.InlineOnly\npublic inline fun CharSequence.getOrElse(index: Int, defaultValue: (Int) -> Char): Char {\n    return if (index >= 0 && index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns a character at the given [index] or `null` if the [index] is out of bounds of this char sequence.\n */\npublic fun CharSequence.getOrNull(index: Int): Char? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns index of the first character matching the given [predicate], or -1 if the char sequence does not contain such character.\n */\npublic inline fun CharSequence.indexOfFirst(predicate: (Char) -> Boolean): Int {\n    for (index in indices) {\n        if (predicate(this[index]))\n            return index\n    }\n    return -1\n}\n\n/**\n * Returns index of the last character matching the given [predicate], or -1 if the char sequence does not contain such character.\n */\npublic inline fun CharSequence.indexOfLast(predicate: (Char) -> Boolean): Int {\n    for (index in indices.reversed()) {\n        if (predicate(this[index]))\n            return index\n    }\n    return -1\n}\n\n/**\n * Returns the last character.\n * @throws [NoSuchElementException] if the char sequence is empty.\n */\npublic fun CharSequence.last(): Char {\n    if (isEmpty())\n        throw NoSuchElementException("Char sequence is empty.")\n    return this[lastIndex]\n}\n\n/**\n * Returns the last character matching the given [predicate].\n * @throws [NoSuchElementException] if no such character is found.\n */\npublic inline fun CharSequence.last(predicate: (Char) -> Boolean): Char {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if (predicate(element)) return element\n    }\n    throw NoSuchElementException("Char sequence contains no character matching the predicate.")\n}\n\n/**\n * Returns the last character, or `null` if the char sequence is empty.\n */\npublic fun CharSequence.lastOrNull(): Char? {\n    return if (isEmpty()) null else this[length - 1]\n}\n\n/**\n * Returns the last character matching the given [predicate], or `null` if no such character was found.\n */\npublic inline fun CharSequence.lastOrNull(predicate: (Char) -> Boolean): Char? {\n    for (index in this.indices.reversed()) {\n        val element = this[index]\n        if (predicate(element)) return element\n    }\n}

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return null\n}\n\n/**\n * Returns a random character from this char sequence.\n * \n * @throws
NoSuchElementException if this char sequence is empty.\n
*\n@SinceKotlin("1.3")\n@kotlin.internal.InlineOnly\npublic inline fun CharSequence.random(): Char {\n
return random(Random)\n}\n\n/**\n * Returns a random character from this char sequence using the specified
source of randomness.\n * \n * @throws NoSuchElementException if this char sequence is empty.\n
*\n@SinceKotlin("1.3")\npublic fun CharSequence.random(random: Random): Char {\n if (isEmpty())\n
throw NoSuchElementException("Char sequence is empty.")\n return get(random.nextInt(length))\n}\n\n/**\n *
Returns the single character, or throws an exception if the char sequence is empty or has more than one character.\n
*\npublic fun CharSequence.single(): Char {\n return when (length) {\n 0 -> throw
NoSuchElementException("Char sequence is empty.")\n 1 -> this[0]\n else -> throw
IllegalArgumentException("Char sequence has more than one element.")\n }\n}\n\n/**\n * Returns the single
character matching the given [predicate], or throws exception if there is no or more than one matching character.\n
*\npublic inline fun CharSequence.single(predicate: (Char) -> Boolean): Char {\n var single: Char? = null\n var
found = false\n for (element in this) {\n if (predicate(element)) {\n if (found) throw
IllegalArgumentException("Char sequence contains more than one matching element.")\n single =
element\n found = true\n }\n }\n if (!found) throw NoSuchElementException("Char sequence
contains no character matching the predicate.")\n @Suppress("UNCHECKED_CAST")\n return single as
Char\n}\n\n/**\n * Returns single character, or `null` if the char sequence is empty or has more than one character.\n
*\npublic fun CharSequence.singleOrNull(): Char? {\n return if (length == 1) this[0] else null\n}\n\n/**\n *
Returns the single character matching the given [predicate], or `null` if character was not found or more than one
character was found.\n *\npublic inline fun CharSequence.singleOrNull(predicate: (Char) -> Boolean): Char? {\n
var single: Char? = null\n var found = false\n for (element in this) {\n if (predicate(element)) {\n if
(found) return null\n single = element\n found = true\n }\n }\n if (!found) return null\n return
single\n}\n\n/**\n * Returns a subsequence of this char sequence with the first [n] characters removed.\n * \n *
@throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n *\npublic fun
CharSequence.drop(n: Int): CharSequence {\n require(n >= 0) { "Requested character count $n is less than zero."
}\n return subSequence(n.coerceAtMost(length), length)\n}\n\n/**\n * Returns a string with the first [n] characters
removed.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.text.Strings.drop\n *\npublic fun String.drop(n: Int): String {\n require(n >= 0) { "Requested character
count $n is less than zero." }\n return substring(n.coerceAtMost(length))\n}\n\n/**\n * Returns a subsequence of
this char sequence with the last [n] characters removed.\n * \n * @throws IllegalArgumentException if [n] is
negative.\n * \n * @sample samples.text.Strings.drop\n *\npublic fun CharSequence.dropLast(n: Int):
CharSequence {\n require(n >= 0) { "Requested character count $n is less than zero." }\n return take((length -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a string with the last [n] characters removed.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.drop\n *\npublic fun
String.dropLast(n: Int): String {\n require(n >= 0) { "Requested character count $n is less than zero." }\n return
take((length - n).coerceAtLeast(0))\n}\n\n/**\n * Returns a subsequence of this char sequence containing all
characters except last characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n
*\npublic inline fun CharSequence.dropLastWhile(predicate: (Char) -> Boolean): CharSequence {\n for (index in
lastIndex downTo 0)\n if (!predicate(this[index]))\n return subSequence(0, index + 1)\n return
""\n}\n\n/**\n * Returns a string containing all characters except last characters that satisfy the given [predicate].\n
*\n * \n * @sample samples.text.Strings.drop\n *\npublic inline fun String.dropLastWhile(predicate: (Char) ->
Boolean): String {\n for (index in lastIndex downTo 0)\n if (!predicate(this[index]))\n return
substring(0, index + 1)\n return ""\n}\n\n/**\n * Returns a subsequence of this char sequence containing all
characters except first characters that satisfy the given [predicate].\n * \n * @sample samples.text.Strings.drop\n
*\npublic inline fun CharSequence.dropWhile(predicate: (Char) -> Boolean): CharSequence {\n for (index in
this.indices)\n if (!predicate(this[index]))\n return subSequence(index, length)\n return ""\n}\n\n/**\n *
Returns a string containing all characters except first characters that satisfy the given [predicate].\n * \n *

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@sample samples.text.Strings.drop\n *^\npublic inline fun String.dropWhile(predicate: (Char) -> Boolean): String
{\n for (index in this.indices)\n     if (!predicate(this[index]))\n         return substring(index)\n     return
""\n}\n\n/**\n * Returns a char sequence containing only those characters from the original char sequence that
match the given [predicate].\n *^\npublic inline fun CharSequence.filter(predicate: (Char) -> Boolean):
CharSequence {\n     return filterTo(StringBuilder(), predicate)\n}\n\n/**\n * Returns a string containing only those
characters from the original string that match the given [predicate].\n *^\npublic inline fun String.filter(predicate:
(Char) -> Boolean): String {\n     return filterTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Returns a char
sequence containing only those characters from the original char sequence that match the given [predicate].\n *
@param [predicate] function that takes the index of a character and the character itself\n * and returns the result of
predicate evaluation on the character.\n *^\npublic inline fun CharSequence.filterIndexed(predicate: (index: Int,
Char) -> Boolean): CharSequence {\n     return filterIndexedTo(StringBuilder(), predicate)\n}\n\n/**\n * Returns a
string containing only those characters from the original string that match the given [predicate].\n * @param
[predicate] function that takes the index of a character and the character itself\n * and returns the result of predicate
evaluation on the character.\n *^\npublic inline fun String.filterIndexed(predicate: (index: Int, Char) -> Boolean):
String {\n     return filterIndexedTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Appends all characters
matching the given [predicate] to the given [destination].\n * @param [predicate] function that takes the index of a
character and the character itself\n * and returns the result of predicate evaluation on the character.\n *^\npublic
inline fun <C : Appendable> CharSequence.filterIndexedTo(destination: C, predicate: (index: Int, Char) ->
Boolean): C {\n     forEachIndexed { index, element ->\n         if (predicate(index, element))
destination.append(element)\n     }\n     return destination\n}\n\n/**\n * Returns a char sequence containing only
those characters from the original char sequence that do not match the given [predicate].\n *^\npublic inline fun
CharSequence.filterNot(predicate: (Char) -> Boolean): CharSequence {\n     return filterNotTo(StringBuilder(),
predicate)\n}\n\n/**\n * Returns a string containing only those characters from the original string that do not match
the given [predicate].\n *^\npublic inline fun String.filterNot(predicate: (Char) -> Boolean): String {\n     return
filterNotTo(StringBuilder(), predicate).toString()\n}\n\n/**\n * Appends all characters not matching the given
[predicate] to the given [destination].\n *^\npublic inline fun <C : Appendable>
CharSequence.filterNotTo(destination: C, predicate: (Char) -> Boolean): C {\n     for (element in this) if
(!predicate(element)) destination.append(element)\n     return destination\n}\n\n/**\n * Appends all characters
matching the given [predicate] to the given [destination].\n *^\npublic inline fun <C : Appendable>
CharSequence.filterTo(destination: C, predicate: (Char) -> Boolean): C {\n     for (index in 0 until length) {\n         val
element = get(index)\n         if (predicate(element)) destination.append(element)\n     }\n     return
destination\n}\n\n/**\n * Returns a char sequence containing characters of the original char sequence at the
specified range of [indices].\n *^\npublic fun CharSequence.slice(indices: IntRange): CharSequence {\n     if
(indices.isEmpty()) return ""\n     return subSequence(indices)\n}\n\n/**\n * Returns a string containing characters
of the original string at the specified range of [indices].\n *^\npublic fun String.slice(indices: IntRange): String {\n
if (indices.isEmpty()) return ""\n     return substring(indices)\n}\n\n/**\n * Returns a char sequence containing
characters of the original char sequence at specified [indices].\n *^\npublic fun CharSequence.slice(indices:
Iterable<Int>): CharSequence {\n     val size = indices.collectionSizeOrDefault(10)\n     if (size == 0) return ""\n
val result = StringBuilder(size)\n     for (i in indices) {\n         result.append(get(i))\n     }\n     return result\n}\n\n/**\n * Returns a string containing characters of the original string at specified [indices].\n
*^\n@kotlin.internal.InlineOnly\npublic inline fun String.slice(indices: Iterable<Int>): String {\n     return (this as
CharSequence).slice(indices).toString()\n}\n\n/**\n * Returns a subsequence of this char sequence containing the
first [n] characters from this char sequence, or the entire char sequence if this char sequence is shorter.\n * \n *
@throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.text.Strings.take\n *^\npublic fun
CharSequence.take(n: Int): CharSequence {\n     require(n >= 0) { "Requested character count $n is less than zero."
}\n     return subSequence(0, n.coerceAtMost(length))\n}\n\n/**\n * Returns a string containing the first [n]
characters from this string, or the entire string if this string is shorter.\n * \n * @throws IllegalArgumentException if
[n] is negative.\n * \n * @sample samples.text.Strings.take\n *^\npublic fun String.take(n: Int): String {\n     require(n

```



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CharSequence.associateByTo(destination: M, keySelector: (Char) -> K): M {
    for (element in this) {
        destination.put(keySelector(element), element)
    }
    return destination
}
Populates and returns the [destination] mutable map with key-value pairs,
where key is provided by the [keySelector] function and value is provided by the [valueTransform] function applied to characters of the given char sequence.
If any two characters would have the same key returned by [keySelector] the last one gets added to the map.

public inline fun <K, V, M : MutableMap<in K, in V>> CharSequence.associateByTo(destination: M, keySelector: (Char) -> K, valueTransform: (Char) -> V): M {
    for (element in this) {
        destination.put(keySelector(element), valueTransform(element))
    }
    return destination
}
Populates and returns the [destination] mutable map with key-value pairs
provided by [transform] function applied to each character of the given char sequence.
If any of two pairs would have the same key the last one gets added to the map.

public inline fun <K, V, M : MutableMap<in K, in V>> CharSequence.associateTo(destination: M, transform: (Char) -> Pair<K, V>): M {
    for (element in this) {
        destination += transform(element)
    }
    return destination
}
Returns a [Map] where keys are characters from the given char sequence and values are
produced by the [valueSelector] function applied to each character.
If any two characters are equal, the last one gets added to the map.
The returned map preserves the entry iteration order of the original char sequence.

@sample samples.text.Strings.associateWith

@SinceKotlin("1.3")
public inline fun <V> CharSequence.associateWith(valueSelector: (Char) -> V): Map<Char, V> {
    val result = LinkedHashMap<Char, V>(mapCapacity(length).coerceAtLeast(16))
    return associateWithTo(result, valueSelector)
}
Populates and returns the [destination] mutable map with key-value pairs for each character of the given char sequence,
where key is the character itself and value is provided by the [valueSelector] function applied to that key.
If any two characters are equal, the last one overwrites the former value in the map.

@SinceKotlin("1.3")
public inline fun <V, M : MutableMap<in Char, in V>>
CharSequence.associateWithTo(destination: M, valueSelector: (Char) -> V): M {
    for (element in this) {
        destination.put(element, valueSelector(element))
    }
    return destination
}
Appends all characters to the given [destination] collection.

public fun <C : MutableCollection<in Char>>
CharSequence.toCollection(destination: C): C {
    for (item in this) {
        destination.add(item)
    }
    return destination
}
Returns a [HashSet] of all characters.

public fun CharSequence.toHashSet(): HashSet<Char> {
    return toCollection(HashSet<Char>(mapCapacity(length)))
}
Returns a [List] containing all characters.

public fun CharSequence.toList(): List<Char> {
    return when (length) {
        0 -> emptyList()
        1 -> listOf(this[0])
        else -> this.toMutableList()
    }
}
Returns a [MutableList] filled with all characters of this char sequence.

public fun CharSequence.toMutableList(): MutableList<Char> {
    return toCollection(ArrayList<Char>(length))
}
Returns a [Set] of all characters.
The returned set preserves the element iteration order of the original char sequence.

public fun CharSequence.toSet(): Set<Char> {
    return when (length) {
        0 -> emptySet()
        1 -> setOf(this[0])
        else -> toCollection(LinkedHashSet<Char>(mapCapacity(length)))
    }
}
Returns a single list of all elements yielded from results of [transform] function being invoked on each character of original char sequence.

public inline fun <R> CharSequence.flatMap(transform: (Char) -> Iterable<R>): List<R> {
    return flatMapTo(ArrayList<R>(), transform)
}
Appends all elements yielded from results of [transform] function being invoked on each character of original char sequence, to the given [destination].

public inline fun <R, C : MutableCollection<in R>> CharSequence.flatMapTo(destination: C, transform: (Char) -> Iterable<R>): C {
    for (element in this) {
        val list = transform(element)
        destination.addAll(list)
    }
    return destination
}
Groups characters of the original char sequence by the key returned by the given [keySelector] function
applied to each character and returns a map where each group key is associated with a list of corresponding characters.
The returned map preserves the entry iteration order of the keys produced from the original char sequence.

@sample samples.collections.Collections.Transformations.groupBy

public inline fun <K> CharSequence.groupBy(keySelector: (Char) -> K): Map<K, List<Char>> {
    return groupByTo(LinkedHashMap<K, MutableList<Char>>(), keySelector)
}
Groups values returned by the [valueTransform] function applied to each character of the original char sequence
by the key returned by the

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given [keySelector] function applied to the character\n \* and returns a map where each group key is associated with a list of corresponding values.\n \* \n \* The returned map preserves the entry iteration order of the keys produced from the original char sequence.\n \* \n \* @sample

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samples.collections.Collections.Transformations.groupByKeyAndValues\n *^\npublic inline fun <K, V>
CharSequence.groupBy(keySelector: (Char) -> K, valueTransform: (Char) -> V): Map<K, List<V>> {\n  return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups
characters of the original char sequence by the key returned by the given [keySelector] function\n * applied to each
character and puts to the [destination] map each group key associated with a list of corresponding characters.\n * \n
* @return The [destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*^\npublic inline fun <K, M : MutableMap<in K, MutableList<Char>>> CharSequence.groupByTo(destination: M,
keySelector: (Char) -> K): M {\n  for (element in this) {\n    val key = keySelector(element)\n    val list =
destination.getOrPut(key) { ArrayList<Char>() }\n    list.add(element)\n  }\n  return destination\n}\n\n/**\n *
Groups values returned by the [valueTransform] function applied to each character of the original char sequence\n *
by the key returned by the given [keySelector] function applied to the character\n * and puts to the [destination] map
each group key associated with a list of corresponding values.\n * \n * @return The [destination] map.\n * \n *
@sample samples.collections.Collections.Transformations.groupByKeyAndValues\n *^\npublic inline fun <K, V,
M : MutableMap<in K, MutableList<V>>> CharSequence.groupByTo(destination: M, keySelector: (Char) -> K,
valueTransform: (Char) -> V): M {\n  for (element in this) {\n    val key = keySelector(element)\n    val list =
destination.getOrPut(key) { ArrayList<V>() }\n    list.add(valueTransform(element))\n  }\n  return
destination\n}\n\n/**\n * Creates a [Grouping] source from a char sequence to be used later with one of group-and-
fold operations\n * using the specified [keySelector] function to extract a key from each character.\n * \n * @sample
samples.collections.Grouping.groupingByEachCount\n *^\n@SinceKotlin("1.1")\npublic inline fun <K>
CharSequence.groupingBy(crossinline keySelector: (Char) -> K): Grouping<Char, K> {\n  return object :
Grouping<Char, K> {\n    override fun sourceIterator(): Iterator<Char> = this@groupingBy.iterator()\n
    override fun keyOf(element: Char): K = keySelector(element)\n  }\n}\n\n/**\n * Returns a list containing the
results of applying the given [transform] function\n * to each character in the original char sequence.\n * \n *
@sample samples.text.Strings.map\n *^\npublic inline fun <R> CharSequence.map(transform: (Char) -> R):
List<R> {\n  return mapTo(ArrayList<R>(length), transform)\n}\n\n/**\n * Returns a list containing the results of
applying the given [transform] function\n * to each character and its index in the original char sequence.\n *
@param [transform] function that takes the index of a character and the character itself\n * and returns the result of
the transform applied to the character.\n *^\npublic inline fun <R> CharSequence.mapIndexed(transform: (index:
Int, Char) -> R): List<R> {\n  return mapIndexedTo(ArrayList<R>(length), transform)\n}\n\n/**\n * Returns a list
containing only the non-null results of applying the given [transform] function\n * to each character and its index in
the original char sequence.\n * @param [transform] function that takes the index of a character and the character
itself\n * and returns the result of the transform applied to the character.\n *^\npublic inline fun <R : Any>
CharSequence.mapIndexedNotNull(transform: (index: Int, Char) -> R?): List<R> {\n  return
mapIndexedNotNullTo(ArrayList<R>(), transform)\n}\n\n/**\n * Applies the given [transform] function to each
character and its index in the original char sequence\n * and appends only the non-null results to the given
[destination].\n * @param [transform] function that takes the index of a character and the character itself\n * and
returns the result of the transform applied to the character.\n *^\npublic inline fun <R : Any, C :
MutableCollection<in R>> CharSequence.mapIndexedNotNullTo(destination: C, transform: (index: Int, Char) ->
R?): C {\n  forEachIndexed { index, element -> transform(index, element)?.let { destination.add(it) } }\n  return
destination\n}\n\n/**\n * Applies the given [transform] function to each character and its index in the original char
sequence\n * and appends the results to the given [destination].\n * @param [transform] function that takes the
index of a character and the character itself\n * and returns the result of the transform applied to the character.\n
*^\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.mapIndexedTo(destination: C, transform:
(index: Int, Char) -> R): C {\n  var index = 0\n  for (item in this)\n    destination.add(transform(index++,
item))\n  return destination\n}\n\n/**\n * Returns a list containing only the non-null results of applying the given

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[transform] function\n * to each character in the original char sequence.\n *\npublic inline fun <R : Any>
CharSequence.mapNotNull(transform: (Char) -> R?): List<R> {\n    return mapNotNullTo(ArrayList<R>()),
transform)\n}\n\n/**\n * Applies the given [transform] function to each character in the original char sequence\n *
and appends only the non-null results to the given [destination].\n *\npublic inline fun <R : Any, C :
MutableCollection<in R>> CharSequence.mapNotNullTo(destination: C, transform: (Char) -> R?): C {\n    forEach
{ element -> transform(element)?.let { destination.add(it) } }\n    return destination\n}\n\n/**\n * Applies the given
[transform] function to each character of the original char sequence\n * and appends the results to the given
[destination].\n *\npublic inline fun <R, C : MutableCollection<in R>> CharSequence.mapTo(destination: C,
transform: (Char) -> R): C {\n    for (item in this)\n        destination.add(transform(item))\n    return
destination\n}\n\n/**\n * Returns a lazy [Iterable] that wraps each character of the original char sequence\n * into an
[IndexValue] containing the index of that character and the character itself.\n *\npublic fun
CharSequence.withIndex(): Iterable<IndexedValue<Char>> {\n    return IndexingIterable { iterator() }\n}\n\n/**\n *
Returns `true` if all characters match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.all\n *\npublic inline fun CharSequence.all(predicate: (Char) ->
Boolean): Boolean {\n    for (element in this) if (!predicate(element)) return false\n    return true\n}\n\n/**\n *
Returns `true` if char sequence has at least one character.\n * \n * @sample
samples.collections.Collections.Aggregates.any\n *\npublic fun CharSequence.any(): Boolean {\n    return
!isEmpty()\n}\n\n/**\n * Returns `true` if at least one character matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n *\npublic inline fun CharSequence.any(predicate:
(Char) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return true\n    return
false\n}\n\n/**\n * Returns the length of this char sequence.\n *\n@kotlin.internal.InlineOnly\npublic inline fun
CharSequence.count(): Int {\n    return length\n}\n\n/**\n * Returns the number of characters matching the given
[predicate].\n *\npublic inline fun CharSequence.count(predicate: (Char) -> Boolean): Int {\n    var count = 0\n
for (element in this) if (predicate(element)) ++count\n    return count\n}\n\n/**\n * Accumulates value starting with
[initial] value and applying [operation] from left to right to current accumulator value and each character.\n
*\npublic inline fun <R> CharSequence.fold(initial: R, operation: (acc: R, Char) -> R): R {\n    var accumulator =
initial\n    for (element in this) accumulator = operation(accumulator, element)\n    return accumulator\n}\n\n/**\n *
Accumulates value starting with [initial] value and applying [operation] from left to right\n * to current accumulator
value and each character with its index in the original char sequence.\n * @param [operation] function that takes the
index of a character, current accumulator value\n * and the character itself, and calculates the next accumulator
value.\n *\npublic inline fun <R> CharSequence.foldIndexed(initial: R, operation: (index: Int, acc: R, Char) -> R):
R {\n    var index = 0\n    var accumulator = initial\n    for (element in this) accumulator = operation(index++,
accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and
applying [operation] from right to left to each character and current accumulator value.\n *\npublic inline fun <R>
CharSequence.foldRight(initial: R, operation: (Char, acc: R) -> R): R {\n    var index = lastIndex\n    var
accumulator = initial\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n
return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right
to left\n * to each character with its index in the original char sequence and current accumulator value.\n * @param
[operation] function that takes the index of a character, the character itself\n * and current accumulator value, and
calculates the next accumulator value.\n *\npublic inline fun <R> CharSequence.foldRightIndexed(initial: R,
operation: (index: Int, Char, acc: R) -> R): R {\n    var index = lastIndex\n    var accumulator = initial\n    while
(index >= 0) {\n        accumulator = operation(index, get(index), accumulator)\n        --index\n    }\n    return
accumulator\n}\n\n/**\n * Performs the given [action] on each character.\n *\npublic inline fun
CharSequence.forEach(action: (Char) -> Unit): Unit {\n    for (element in this) action(element)\n}\n\n/**\n *
Performs the given [action] on each character, providing sequential index with the character.\n * @param [action]
function that takes the index of a character and the character itself\n * and performs the desired action on the
character.\n *\npublic inline fun CharSequence.forEachIndexed(action: (index: Int, Char) -> Unit): Unit {\n    var
index = 0\n    for (item in this) action(index++, item)\n}\n\n/**\n * Returns the largest character or `null` if there are

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no characters.\n */\npublic fun CharSequence.max(): Char? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (max < e) max = e\n    }\n    return max\n}\n\n/**\n * Returns the first character yielding the largest value of the given function or `null` if there are no characters.\n */\n * @sample samples.collections.Collections.Aggregates.maxBy\n */\npublic inline fun <R : Comparable<R>>\nCharSequence.maxBy(selector: (Char) -> R): Char? {\n    if (isEmpty()) return null\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxValue < v) {\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n/**\n * Returns the first character having the largest value according to the provided [comparator] or `null` if there are no characters.\n */\n */\npublic fun\nCharSequence.maxWith(comparator: Comparator<in Char>): Char? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n/**\n * Returns the smallest character or `null` if there are no characters.\n */\n */\npublic fun\nCharSequence.min(): Char? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first character yielding the smallest value of the given function or `null` if there are no characters.\n */\n * @sample\n * samples.collections.Collections.Aggregates.minBy\n */\npublic inline fun <R : Comparable<R>>\nCharSequence.minBy(selector: (Char) -> R): Char? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v) {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first character having the smallest value according to the provided [comparator] or `null` if there are no characters.\n */\n */\npublic fun\nCharSequence.minWith(comparator: Comparator<in Char>): Char? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns `true` if the char sequence has no characters.\n */\n * @sample\n * samples.collections.Collections.Aggregates.none\n */\n */\npublic fun CharSequence.none(): Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if no characters match the given [predicate].\n */\n * @sample\n * samples.collections.Collections.Aggregates.noneWithPredicate\n */\n */\npublic inline fun\nCharSequence.none(predicate: (Char) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return false\n    return true\n}\n\n/**\n * Performs the given [action] on each character and returns the char sequence itself afterwards.\n */\n */\n@SinceKotlin("1.1")\npublic inline fun <S : CharSequence> S.onEach(action: (Char) -> Unit): S {\n    return apply { for (element in this) action(element) }\n}\n\n/**\n * Accumulates value starting with the first character and applying [operation] from left to right to current accumulator value and each character.\n */\n */\n */\npublic inline fun\nCharSequence.reduce(operation: (acc: Char, Char) -> Char): Char {\n    if (isEmpty())\n        throw\n        UnsupportedOperationException("Empty char sequence can't be reduced.")\n    var accumulator = this[0]\n    for (index in 1..lastIndex) {\n        accumulator = operation(accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first character and applying [operation] from left to right\n * to current accumulator value and each character with its index in the original char sequence.\n */\n * @param\n * [operation] function that takes the index of a character, current accumulator value\n * and the character itself and calculates the next accumulator value.\n */\n */\n */\npublic inline fun\nCharSequence.reduceIndexed(operation: (index: Int, acc: Char, Char) -> Char): Char {\n    if (isEmpty())\n        throw\n        UnsupportedOperationException("Empty char sequence can't be reduced.")\n    var accumulator = this[0]\n    for (index in 1..lastIndex) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with last character and applying [operation] from right to left to each character and current accumulator value.\n */\n */\n */\npublic inline fun\nCharSequence.reduceRight(operation: (Char, acc: Char) -> Char): Char {\n    var index =\n        lastIndex\n    if (index < 0) throw\n        UnsupportedOperationException("Empty char sequence can't be reduced.")\n    var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(get(index--), accumulator)\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with last character and applying [operation] from right to left\n * to each character with its index in the original char sequence and current accumulator value.\n */\n *

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@param [operation] function that takes the index of a character, the character itself\n * and current accumulator
value, and calculates the next accumulator value.\n */\npublic inline fun
CharSequence.reduceRightIndexed(operation: (index: Int, Char, acc: Char) -> Char): Char {\n    var index =
lastIndex\n    if (index < 0) throw UnsupportedOperationException("Empty char sequence can't be reduced.")\n
var accumulator = get(index--)\n    while (index >= 0) {\n        accumulator = operation(index, get(index),
accumulator)\n        --index\n    }\n    return accumulator\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each character in the char sequence.\n */\npublic inline fun
CharSequence.sumBy(selector: (Char) -> Int): Int {\n    var sum: Int = 0\n    for (element in this) {\n        sum +=
selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function
applied to each character in the char sequence.\n */\npublic inline fun CharSequence.sumByDouble(selector: (Char)
-> Double): Double {\n    var sum: Double = 0.0\n    for (element in this) {\n        sum += selector(element)\n    }\n
return sum\n}\n\n/**\n * Splits this char sequence into a list of strings each not exceeding the given [size].\n * \n *
The last string in the resulting list may have less characters than the given [size].\n * \n * @param size the number
of elements to take in each string, must be positive and can be greater than the number of elements in this char
sequence.\n * \n * @sample samples.collections.Collections.Transformations.chunked\n
*/\n\n@SinceKotlin("1.2")\npublic fun CharSequence.chunked(size: Int): List<String> {\n    return windowed(size,
size, partialWindows = true)\n}\n\n/**\n * Splits this char sequence into several char sequences each not exceeding
the given [size]\n * and applies the given [transform] function to an each.\n * \n * @return list of results of the
[transform] applied to an each char sequence.\n * \n * Note that the char sequence passed to the [transform] function
is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some way,
unless you made a snapshot of it.\n * The last char sequence may have less characters than the given [size].\n * \n *
@param size the number of elements to take in each char sequence, must be positive and can be greater than the
number of elements in this char sequence.\n * \n * @sample samples.text.Strings.chunkedTransform\n
*/\n\n@SinceKotlin("1.2")\npublic fun <R> CharSequence.chunked(size: Int, transform: (CharSequence) -> R):
List<R> {\n    return windowed(size, size, partialWindows = true, transform = transform)\n}\n\n/**\n * Splits this
char sequence into a sequence of strings each not exceeding the given [size].\n * \n * The last string in the resulting
sequence may have less characters than the given [size].\n * \n * @param size the number of elements to take in
each string, must be positive and can be greater than the number of elements in this char sequence.\n * \n * @sample
samples.collections.Collections.Transformations.chunked\n */\n\n@SinceKotlin("1.2")\npublic fun
CharSequence.chunkedSequence(size: Int): Sequence<String> {\n    return chunkedSequence(size) { it.toString()
}\n}\n\n/**\n * Splits this char sequence into several char sequences each not exceeding the given [size]\n * and
applies the given [transform] function to an each.\n * \n * @return sequence of results of the [transform] applied to
an each char sequence.\n * \n * Note that the char sequence passed to the [transform] function is ephemeral and is
valid only inside that function.\n * You should not store it or allow it to escape in some way, unless you made a
snapshot of it.\n * The last char sequence may have less characters than the given [size].\n * \n * @param size the
number of elements to take in each char sequence, must be positive and can be greater than the number of elements
in this char sequence.\n * \n * @sample samples.text.Strings.chunkedTransformToSequence\n
*/\n\n@SinceKotlin("1.2")\npublic fun <R> CharSequence.chunkedSequence(size: Int, transform: (CharSequence) -
> R): Sequence<R> {\n    return windowedSequence(size, size, partialWindows = true, transform =
transform)\n}\n\n/**\n * Splits the original char sequence into pair of char sequences,\n * where *first* char
sequence contains characters for which [predicate] yielded `true`,\n * while *second* char sequence contains
characters for which [predicate] yielded `false`.\n * \n */\n\npublic inline fun CharSequence.partition(predicate: (Char) ->
Boolean): Pair<CharSequence, CharSequence> {\n    val first = StringBuilder()\n    val second = StringBuilder()\n
for (element in this) {\n        if (predicate(element)) {\n            first.append(element)\n        } else {\n
second.append(element)\n        }\n    }\n    return Pair(first, second)\n}\n\n/**\n * Splits the original string into pair
of strings,\n * where *first* string contains characters for which [predicate] yielded `true`,\n * while *second* string
contains characters for which [predicate] yielded `false`.\n * \n */\n\npublic inline fun String.partition(predicate: (Char) ->
Boolean): Pair<String, String> {\n    val first = StringBuilder()\n    val second = StringBuilder()\n    for (element in

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this) {\n    if (predicate(element)) {\n        first.append(element)\n    } else {\n
second.append(element)\n    }\n }\n return Pair(first.toString(), second.toString())\n}\n\n/**\n * Returns a list
of snapshots of the window of the given [size]\n * sliding along this char sequence with the given [step], where
each\n * snapshot is a string.\n * \n * Several last strings may have less characters than the given [size].\n * \n *
Both [size] and [step] must be positive and can be greater than the number of elements in this char sequence.\n *
@param size the number of elements to take in each window\n * @param step the number of elements to move the
window forward by on an each step, by default 1\n * @param partialWindows controls whether or not to keep
partial windows in the end if any,\n * by default `false` which means partial windows won't be preserved\n * \n *
@sample samples.collections.Sequences.Transformations.takeWindows\n */\n@SinceKotlin("1.2")\npublic fun
CharSequence.windowed(size: Int, step: Int = 1, partialWindows: Boolean = false): List<String> {\n    return
windowed(size, step, partialWindows) { it.toString() }\n}\n\n/**\n * Returns a list of results of applying the given
[transform] function to\n * an each char sequence representing a view over the window of the given [size]\n *
sliding along this char sequence with the given [step].\n * \n * Note that the char sequence passed to the [transform]
function is ephemeral and is valid only inside that function.\n * You should not store it or allow it to escape in some
way, unless you made a snapshot of it.\n * Several last char sequences may have less characters than the given
[size].\n * \n * Both [size] and [step] must be positive and can be greater than the number of elements in this char
sequence.\n * @param size the number of elements to take in each window\n * @param step the number of
elements to move the window forward by on an each step, by default 1\n * @param partialWindows controls
whether or not to keep partial windows in the end if any,\n * by default `false` which means partial windows won't
be preserved\n * \n * @sample samples.collections.Sequences.Transformations.averageWindows\n
*/\n@SinceKotlin("1.2")\npublic fun <R> CharSequence.windowed(size: Int, step: Int = 1, partialWindows:
Boolean = false, transform: (CharSequence) -> R): List<R> {\n    checkWindowSizeStep(size, step)\n    val thisSize
= this.length\n    val result = ArrayList<R>((thisSize + step - 1) / step)\n    var index = 0\n    while (index < thisSize)
{\n        val end = index + size\n        val coercedEnd = if (end > thisSize) { if (partialWindows) thisSize else break }
else end\n        result.add(transform(subSequence(index, coercedEnd)))\n        index += step\n    }\n    return
result\n}\n\n/**\n * Returns a sequence of snapshots of the window of the given [size]\n * sliding along this char
sequence with the given [step], where each\n * snapshot is a string.\n * \n * Several last strings may have less
characters than the given [size].\n * \n * Both [size] and [step] must be positive and can be greater than the number
of elements in this char sequence.\n * @param size the number of elements to take in each window\n * @param step
the number of elements to move the window forward by on an each step, by default 1\n * @param partialWindows
controls whether or not to keep partial windows in the end if any,\n * by default `false` which means partial
windows won't be preserved\n * \n * @sample samples.collections.Sequences.Transformations.takeWindows\n
*/\n@SinceKotlin("1.2")\npublic fun CharSequence.windowedSequence(size: Int, step: Int = 1, partialWindows:
Boolean = false): Sequence<String> {\n    return windowedSequence(size, step, partialWindows) { it.toString()
}\n}\n\n/**\n * Returns a sequence of results of applying the given [transform] function to\n * an each char
sequence representing a view over the window of the given [size]\n * sliding along this char sequence with the given
[step].\n * \n * Note that the char sequence passed to the [transform] function is ephemeral and is valid only inside
that function.\n * You should not store it or allow it to escape in some way, unless you made a snapshot of it.\n *
Several last char sequences may have less characters than the given [size].\n * \n * Both [size] and [step] must be
positive and can be greater than the number of elements in this char sequence.\n * @param size the number of
elements to take in each window\n * @param step the number of elements to move the window forward by on an
each step, by default 1\n * @param partialWindows controls whether or not to keep partial windows in the end if
any,\n * by default `false` which means partial windows won't be preserved\n * \n * @sample
samples.collections.Sequences.Transformations.averageWindows\n */\n@SinceKotlin("1.2")\npublic fun <R>
CharSequence.windowedSequence(size: Int, step: Int = 1, partialWindows: Boolean = false, transform:
(CharSequence) -> R): Sequence<R> {\n    checkWindowSizeStep(size, step)\n    val windows = (if
(partialWindows) indices else 0 until length - size + 1) step step\n    return windows.asSequence().map { index ->
transform(subSequence(index, (index + size).coerceAtMost(length))) }\n}\n\n/**\n * Returns a list of pairs built

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from the characters of `this` and the [other] char sequences with the same index\n * The returned list has length of
the shortest char sequence.\n * \n * @sample samples.text.Strings.zip\n */\npublic infix fun CharSequence.zip(other:
CharSequence): List<Pair<Char, Char>> {\n    return zip(other) { c1, c2 -> c1 to c2 }\n}\n\n/**\n * Returns a list of
values built from the characters of `this` and the [other] char sequences with the same index\n * using the provided
[transform] function applied to each pair of characters.\n * The returned list has length of the shortest char
sequence.\n * \n * @sample samples.text.Strings.zipWithTransform\n */\npublic inline fun <V>
CharSequence.zip(other: CharSequence, transform: (a: Char, b: Char) -> V): List<V> {\n    val length =
minOf(this.length, other.length)\n    val list = ArrayList<V>(length)\n    for (i in 0 until length) {\n
list.add(transform(this[i], other[i]))\n    }\n    return list\n}\n\n/**\n * Returns a list of pairs of each two adjacent
characters in this char sequence.\n * \n * The returned list is empty if this char sequence contains less than two
characters.\n * \n * @sample samples.collections.Collections.Transformations.zipWithNext\n
*/\n@SinceKotlin("1.2")\npublic fun CharSequence.zipWithNext(): List<Pair<Char, Char>> {\n    return
zipWithNext { a, b -> a to b }\n}\n\n/**\n * Returns a list containing the results of applying the given [transform]
function\n * to an each pair of two adjacent characters in this char sequence.\n * \n * The returned list is empty if
this char sequence contains less than two characters.\n * \n * @sample
samples.collections.Collections.Transformations.zipWithNextToFindDeltas\n */\n@SinceKotlin("1.2")\npublic
inline fun <R> CharSequence.zipWithNext(transform: (a: Char, b: Char) -> R): List<R> {\n    val size = length - 1\n
if (size < 1) return emptyList()\n    val result = ArrayList<R>(size)\n    for (index in 0 until size) {\n
result.add(transform(this[index], this[index + 1]))\n    }\n    return result\n}\n\n/**\n * Creates an [Iterable] instance
that wraps the original char sequence returning its characters when being iterated.\n */\npublic fun
CharSequence.asIterable(): Iterable<Char> {\n    if (this is String && isEmpty()) return emptyList()\n    return
Iterable { this.iterator() }\n}\n\n/**\n * Creates a [Sequence] instance that wraps the original char sequence
returning its characters when being iterated.\n */\npublic fun CharSequence.asSequence(): Sequence<Char> {\n    if
(this is String && isEmpty()) return emptySequence()\n    return Sequence { this.iterator() }\n}\n\n"/>\n *
Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code
is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("StringsKt")\n\npackage
kotlin.text\n\nimport kotlin.contracts.contract\n\n/**\n * Returns a sub sequence of this char sequence
having leading and trailing characters matching the [predicate] removed.\n */\npublic inline fun
CharSequence.trim(predicate: (Char) -> Boolean): CharSequence {\n    var startIndex = 0\n    var endIndex =
length - 1\n    var startFound = false\n\n    while (startIndex <= endIndex) {\n        val index = if (!startFound)
startIndex else endIndex\n        val match = predicate(this[index])\n\n        if (!startFound) {\n            if
(!match)\n                startFound = true\n            else\n                startIndex += 1\n        } else {\n            if
(!match)\n                break\n            else\n                endIndex -= 1\n        }\n    }\n\n    return
subSequence(startIndex, endIndex + 1)\n}\n\n/**\n * Returns a string having leading and trailing characters
matching the [predicate] removed.\n */\npublic inline fun String.trim(predicate: (Char) -> Boolean): String =\n
(this as CharSequence).trim(predicate).toString()\n\n/**\n * Returns a sub sequence of this char sequence
having leading characters matching the [predicate] removed.\n */\npublic inline fun
CharSequence.trimStart(predicate: (Char) -> Boolean): CharSequence {\n    for (index in this.indices)\n        if
(!predicate(this[index]))\n            return subSequence(index, length)\n    return ""\n}\n\n/**\n * Returns a
string having leading characters matching the [predicate] removed.\n */\npublic inline fun
String.trimStart(predicate: (Char) -> Boolean): String =\n    (this as
CharSequence).trimStart(predicate).toString()\n\n/**\n * Returns a sub sequence of this char sequence having
trailing characters matching the [predicate] removed.\n */\npublic inline fun CharSequence.trimEnd(predicate:
(Char) -> Boolean): CharSequence {\n    for (index in this.indices.reversed())\n        if
(!predicate(this[index]))\n            return subSequence(0, index + 1)\n    return ""\n}\n\n/**\n * Returns
a string having trailing characters matching the [predicate] removed.\n */\npublic inline fun
String.trimEnd(predicate: (Char) -> Boolean): String =\n    (this as

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CharSequence).trimEnd(predicate).toString()\r\n\r\n/**\r\n * Returns a sub sequence of this char sequence having
leading and trailing characters from the [chars] array removed.\r\n */\r\npublic fun CharSequence.trim(vararg chars:
Char): CharSequence = trim { it in chars }\r\n\r\n/**\r\n * Returns a string having leading and trailing characters
from the [chars] array removed.\r\n */\r\npublic fun String.trim(vararg chars: Char): String = trim { it in chars
}\r\n\r\n/**\r\n * Returns a sub sequence of this char sequence having leading characters from the [chars] array
removed.\r\n */\r\npublic fun CharSequence.trimStart(vararg chars: Char): CharSequence = trimStart { it in chars
}\r\n\r\n/**\r\n * Returns a string having leading characters from the [chars] array removed.\r\n */\r\npublic fun
String.trimStart(vararg chars: Char): String = trimStart { it in chars }\r\n\r\n/**\r\n * Returns a sub sequence of this
char sequence having trailing characters from the [chars] array removed.\r\n */\r\npublic fun
CharSequence.trimEnd(vararg chars: Char): CharSequence = trimEnd { it in chars }\r\n\r\n/**\r\n * Returns a string
having trailing characters from the [chars] array removed.\r\n */\r\npublic fun String.trimEnd(vararg chars: Char):
String = trimEnd { it in chars }\r\n\r\n/**\r\n * Returns a sub sequence of this char sequence having leading and
trailing whitespace removed.\r\n */\r\npublic fun CharSequence.trim(): CharSequence =
trim(Char::isWhitespace)\r\n\r\n/**\r\n * Returns a string having leading and trailing whitespace removed.\r\n
*/\r\n@kotlin.internal.InlineOnly\r\npublic inline fun String.trim(): String = (this as
CharSequence).trim().toString()\r\n\r\n/**\r\n * Returns a sub sequence of this char sequence having leading
whitespace removed.\r\n */\r\npublic fun CharSequence.trimStart(): CharSequence =
trimStart(Char::isWhitespace)\r\n\r\n/**\r\n * Returns a string having leading whitespace removed.\r\n
*/\r\n@kotlin.internal.InlineOnly\r\npublic inline fun String.trimStart(): String = (this as
CharSequence).trimStart().toString()\r\n\r\n/**\r\n * Returns a sub sequence of this char sequence having trailing
whitespace removed.\r\n */\r\npublic fun CharSequence.trimEnd(): CharSequence =
trimEnd(Char::isWhitespace)\r\n\r\n/**\r\n * Returns a string having trailing whitespace removed.\r\n
*/\r\n@kotlin.internal.InlineOnly\r\npublic inline fun String.trimEnd(): String = (this as
CharSequence).trimEnd().toString()\r\n\r\n/**\r\n * Returns a char sequence with content of this char sequence
padded at the beginning\r\n * to the specified [length] with the specified character or space.\r\n */\r\n * @param
length the desired string length.\r\n * @param padChar the character to pad string with, if it has length less than the
[length] specified. Space is used by default.\r\n * @return Returns a char sequence of length at least [length]
consisting of `this` char sequence prepended with [padChar] as many times\r\n * as are necessary to reach that
length.\r\n * @sample samples.text.Strings.padStart\r\n */\r\npublic fun CharSequence.padStart(length: Int,
padChar: Char = ' '): CharSequence {\r\n    if (length < 0)\r\n        throw IllegalArgumentException("\r\nDesired length
$length is less than zero.\r\n")\r\n    if (length <= this.length)\r\n        return this.subSequence(0, this.length)\r\n\r\n    val sb = StringBuilder(length)\r\n    for (i in 1..(length - this.length))\r\n        sb.append(padChar)\r\n    sb.append(this)\r\n    return sb\r\n}\r\n\r\n/**\r\n * Pads the string to the specified [length] at the beginning with the
specified character or space.\r\n */\r\n * @param length the desired string length.\r\n * @param padChar the
character to pad string with, if it has length less than the [length] specified. Space is used by default.\r\n * @return
Returns a string of length at least [length] consisting of `this` string prepended with [padChar] as many times\r\n *
as are necessary to reach that length.\r\n * @sample samples.text.Strings.padStart\r\n */\r\npublic fun
String.padStart(length: Int, padChar: Char = ' '): String = (this as CharSequence).padStart(length,
padChar).toString()\r\n\r\n/**\r\n * Returns a char sequence with content of this char sequence padded at the end\r\n
* to the specified [length] with the specified character or space.\r\n */\r\n * @param length the desired string
length.\r\n * @param padChar the character to pad string with, if it has length less than the [length] specified. Space
is used by default.\r\n * @return Returns a char sequence of length at least [length] consisting of `this` char
sequence appended with [padChar] as many times\r\n * as are necessary to reach that length.\r\n * @sample
samples.text.Strings.padEnd\r\n */\r\npublic fun CharSequence.padEnd(length: Int, padChar: Char = ' '):
CharSequence {\r\n    if (length < 0)\r\n        throw IllegalArgumentException("\r\nDesired length $length is less than
zero.\r\n")\r\n    if (length <= this.length)\r\n        return this.subSequence(0, this.length)\r\n\r\n    val sb =
StringBuilder(length)\r\n    sb.append(this)\r\n    for (i in 1..(length - this.length))\r\n        sb.append(padChar)\r\n    return sb\r\n}\r\n\r\n/**\r\n * Pads the string to the specified [length] at the end with the specified character or

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space.\r\n * \r\n * @param length the desired string length.\r\n * @param padChar the character to pad string with, if
it has length less than the [length] specified. Space is used by default.\r\n * @return Returns a string of length at
least [length] consisting of `this` string appended with [padChar] as many times\r\n * as are necessary to reach that
length.\r\n * @sample samples.text.Strings.padEnd\r\n * \r\n\r\npublic fun String.padEnd(length: Int, padChar: Char = '
'): String =\r\n (this as CharSequence).padEnd(length, padChar).toString()\r\n\r\n**\r\n * Returns `true` if this
nullable char sequence is either `null` or empty.\r\n * \r\n * @sample samples.text.Strings.stringOrNull\r\n\r\n
*\r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun CharSequence?.isNullOrEmpty(): Boolean {\r\n contract
{\r\n returns(false) implies (this@isNullOrEmpty != null)\r\n }\r\n\r\n return this == null || this.length ==
0\r\n}\r\n\r\n**\r\n * Returns `true` if this char sequence is empty (contains no characters).\r\n * \r\n * @sample
samples.text.Strings.stringIsEmpty\r\n * \r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun
CharSequence.isEmpty(): Boolean = length == 0\r\n\r\n**\r\n * Returns `true` if this char sequence is not
empty.\r\n * \r\n * @sample samples.text.Strings.stringIsNotEmpty\r\n * \r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic
inline fun CharSequence.isNotEmpty(): Boolean = length > 0\r\n\r\n// implemented differently in JVM and
JS\r\n\r\n/public fun String.isBlank(): Boolean = length() == 0 || all { it.isWhitespace() }\r\n\r\n\r\n**\r\n * Returns
`true` if this char sequence is not empty and contains some characters except of whitespace characters.\r\n * \r\n *
@sample samples.text.Strings.stringIsNotBlank\r\n * \r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun
CharSequence.isNotBlank(): Boolean = !isBlank()\r\n\r\n**\r\n * Returns `true` if this nullable char sequence is
either `null` or empty or consists solely of whitespace characters.\r\n * \r\n * @sample
samples.text.Strings.stringOrNull\r\n * \r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun
CharSequence?.isNullOrBlank(): Boolean {\r\n contract {\r\n returns(false) implies (this@isNullOrBlank !=
null)\r\n }\r\n\r\n return this == null || this.isBlank()\r\n}\r\n\r\n**\r\n * Iterator for characters of the given char
sequence.\r\n * \r\n\r\npublic operator fun CharSequence.iterator(): CharIterator = object : CharIterator() {\r\n private
var index = 0\r\n\r\n public override fun nextChar(): Char = get(index++)\r\n\r\n public override fun hasNext():
Boolean = index < length\r\n}\r\n\r\n** Returns the string if it is not `null`, or the empty string otherwise.
*\r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun String?.orEmpty(): String = this ?: ""\r\n\r\n** Returns
this char sequence if it's not empty\r\n * or the result of calling [defaultValue] function if the char sequence is
empty.\r\n * \r\n * @sample samples.text.Strings.stringIfEmpty\r\n * \r\n\r\n@SinceKotlin("1.3")\r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun <C, R> C.ifEmpty(defaultValue: () -
> R): R where C : CharSequence, C : R =\r\n if (isEmpty()) defaultValue() else this\r\n\r\n**\r\n * Returns this
char sequence if it is not empty and doesn't consist solely of whitespace characters,\r\n * or the result of calling
[defaultValue] function otherwise.\r\n * \r\n * @sample samples.text.Strings.stringIfNotBlank\r\n * \r\n\r\n@SinceKotlin("1.3")\r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun <C, R> C.ifNotBlank(defaultValue: () -
> R): R where C : CharSequence, C : R =\r\n if (isBlank()) defaultValue() else this\r\n\r\n**\r\n * Returns the
range of valid character indices for this char sequence.\r\n * \r\n\r\npublic val CharSequence.indices: IntRange\r\n
get() = 0..length - 1\r\n\r\n**\r\n * Returns the index of the last character in the char sequence or -1 if it is
empty.\r\n * \r\n\r\npublic val CharSequence.lastIndex: Int\r\n get() = this.length - 1\r\n\r\n**\r\n * Returns `true` if
this CharSequence has Unicode surrogate pair at the specified [index].\r\n * \r\n\r\npublic fun
CharSequence.hasSurrogatePairAt(index: Int): Boolean {\r\n return index in 0..length - 2\r\n &&
this[index].isHighSurrogate()\r\n && this[index + 1].isLowSurrogate()\r\n}\r\n\r\n**\r\n * Returns a
substring specified by the given [range] of indices.\r\n * \r\n\r\npublic fun String.substring(range: IntRange): String =
substring(range.start, range.endInclusive + 1)\r\n\r\n**\r\n * Returns a subsequence of this char sequence specified
by the given [range] of indices.\r\n * \r\n\r\npublic fun CharSequence.subSequence(range: IntRange): CharSequence =
subSequence(range.start, range.endInclusive + 1)\r\n\r\n**\r\n * Returns a subsequence of this char sequence.\r\n\r\n
*\r\n * This extension is chosen only for invocation with old-named parameters.\r\n * Replace parameter names with
the same as those of [CharSequence.subSequence].\r\n * \r\n\r\n@kotlin.internal.InlineOnly\r\n\r\n@Suppress("EXTENSION_SHADOWED_BY_MEMBER") // false
warning\r\n\r\n@Deprecated("Use parameters named startIndex and endIndex.",
ReplaceWith("subSequence(startIndex = start, endIndex = end)"))\r\n\r\npublic inline fun String.subSequence(start:

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Int, end: Int): CharSequence = subSequence(start, end)\r\n\r\n/\*\*\r\n \* Returns a substring of chars from a range of this char sequence starting at the [startIndex] and ending right before the [endIndex].\r\n \* @param startIndex the start index (inclusive).\r\n \* @param endIndex the end index (exclusive). If not specified, the length of the char sequence is used.\r\n \*/\r\n@kotlin.internal.InlineOnly\r\npublic inline fun CharSequence.substring(startIndex: Int, endIndex: Int = length): String = subSequence(startIndex, endIndex).toString()\r\n\r\n/\*\*\r\n \* Returns a substring of chars at indices from the specified [range] of this char sequence.\r\n \*/\r\npublic fun CharSequence.substring(range: IntRange): String = subSequence(range.start, range.endInclusive + 1).toString()\r\n\r\n/\*\*\r\n \* Returns a substring before the first occurrence of [delimiter].\r\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\r\n \*/\r\npublic fun String.substringBefore(delimiter: Char, missingDelimiterValue: String = this): String {\r\n val index = indexOf(delimiter)\r\n return if (index == -1) missingDelimiterValue else substring(0, index)\r\n}\r\n\r\n/\*\*\r\n \* Returns a substring before the first occurrence of [delimiter].\r\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\r\n \*/\r\npublic fun String.substringBefore(delimiter: String, missingDelimiterValue: String = this): String {\r\n val index = indexOf(delimiter)\r\n return if (index == -1) missingDelimiterValue else substring(0, index)\r\n}\r\n\r\n/\*\*\r\n \* Returns a substring after the first occurrence of [delimiter].\r\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\r\n \*/\r\npublic fun String.substringAfter(delimiter: Char, missingDelimiterValue: String = this): String {\r\n val index = indexOf(delimiter)\r\n return if (index == -1) missingDelimiterValue else substring(index + 1, length)\r\n}\r\n\r\n/\*\*\r\n \* Returns a substring after the first occurrence of [delimiter].\r\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\r\n \*/\r\npublic fun String.substringAfter(delimiter: String, missingDelimiterValue: String = this): String {\r\n val index = indexOf(delimiter)\r\n return if (index == -1) missingDelimiterValue else substring(index + delimiter.length, length)\r\n}\r\n\r\n/\*\*\r\n \* Returns a substring before the last occurrence of [delimiter].\r\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\r\n \*/\r\npublic fun String.substringBeforeLast(delimiter: Char, missingDelimiterValue: String = this): String {\r\n val index = lastIndexOf(delimiter)\r\n return if (index == -1) missingDelimiterValue else substring(0, index)\r\n}\r\n\r\n/\*\*\r\n \* Returns a substring before the last occurrence of [delimiter].\r\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\r\n \*/\r\npublic fun String.substringBeforeLast(delimiter: String, missingDelimiterValue: String = this): String {\r\n val index = lastIndexOf(delimiter)\r\n return if (index == -1) missingDelimiterValue else substring(0, index)\r\n}\r\n\r\n/\*\*\r\n \* Returns a substring after the last occurrence of [delimiter].\r\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\r\n \*/\r\npublic fun String.substringAfterLast(delimiter: Char, missingDelimiterValue: String = this): String {\r\n val index = lastIndexOf(delimiter)\r\n return if (index == -1) missingDelimiterValue else substring(index + 1, length)\r\n}\r\n\r\n/\*\*\r\n \* Returns a substring after the last occurrence of [delimiter].\r\n \* If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the original string.\r\n \*/\r\npublic fun String.substringAfterLast(delimiter: String, missingDelimiterValue: String = this): String {\r\n val index = lastIndexOf(delimiter)\r\n return if (index == -1) missingDelimiterValue else substring(index + delimiter.length, length)\r\n}\r\n\r\n/\*\*\r\n \* Returns a char sequence with content of this char sequence where its part at the given range\r\n \* is replaced with the [replacement] char sequence.\r\n \* @param startIndex the index of the first character to be replaced.\r\n \* @param endIndex the index of the first character after the replacement to keep in the string.\r\n \*/\r\npublic fun CharSequence.replaceRange(startIndex: Int, endIndex: Int, replacement: CharSequence): CharSequence {\r\n if (endIndex < startIndex)\r\n throw IndexOutOfBoundsException("\r\nEnd index (\$endIndex) is less than start index (\$startIndex).")\r\n val sb = StringBuilder()\r\n sb.append(this, 0, startIndex)\r\n sb.append(replacement)\r\n sb.append(this, endIndex, length)\r\n return sb\r\n}\r\n\r\n/\*\*\r\n \* Replaces the part of the string at the given range with the [replacement] char sequence.\r\n \* @param startIndex the index of the first character to be replaced.\r\n \* @param endIndex the index of the first character after the replacement to keep in the string.\r\n \*/\r\n@kotlin.internal.InlineOnly\r\npublic inline fun

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String.replaceRange(startIndex: Int, endIndex: Int, replacement: CharSequence): String =\r\n (this as
CharSequence).replaceRange(startIndex, endIndex, replacement).toString()\r\n\r\n/**\r\n * Returns a char sequence
with content of this char sequence where its part at the given [range]\r\n * is replaced with the [replacement] char
sequence.\r\n * The end index of the [range] is included in the part to be replaced.\r\n */\r\n\r\npublic fun
CharSequence.replaceRange(range: IntRange, replacement: CharSequence): CharSequence =\r\n
replaceRange(range.start, range.endInclusive + 1, replacement)\r\n\r\n/**\r\n * Replace the part of string at the
given [range] with the [replacement] string.\r\n * The end index of the [range] is included in the part to be
replaced.\r\n */\r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun String.replaceRange(range: IntRange,
replacement: CharSequence): String =\r\n (this as CharSequence).replaceRange(range,
replacement).toString()\r\n\r\n/**\r\n * Returns a char sequence with content of this char sequence where its part at
the given range is removed.\r\n * @param startIndex the index of the first character to be removed.\r\n *
@param endIndex the index of the first character after the removed part to keep in the string.\r\n * [endIndex]
is not included in the removed part.\r\n */\r\n\r\npublic fun CharSequence.removeRange(startIndex: Int, endIndex: Int):
CharSequence {\r\n if (endIndex < startIndex)\r\n throw IndexOutOfBoundsException("\r\nEnd index
($endIndex) is less than start index ($startIndex).")\r\n\r\n if (endIndex == startIndex)\r\n return
this.subSequence(0, length)\r\n\r\n val sb = StringBuilder(length - (endIndex - startIndex))\r\n sb.append(this, 0,
startIndex)\r\n sb.append(this, endIndex, length)\r\n return sb\r\n}\r\n\r\n/**\r\n * Removes the part of a string at
a given range.\r\n * @param startIndex the index of the first character to be removed.\r\n * @param endIndex the
index of the first character after the removed part to keep in the string.\r\n * [endIndex] is not included in the
removed part.\r\n */\r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun String.removeRange(startIndex: Int,
endIndex: Int): String =\r\n (this as CharSequence).removeRange(startIndex, endIndex).toString()\r\n\r\n/**\r\n * Returns a char sequence with content of this char sequence where its part at the given [range] is removed.\r\n * The end index of the [range] is included in the removed part.\r\n */\r\n\r\npublic fun
CharSequence.removeRange(range: IntRange): CharSequence = removeRange(range.start, range.endInclusive +
1)\r\n\r\n/**\r\n * Removes the part of a string at the given [range].\r\n * The end index of the [range] is
included in the removed part.\r\n */\r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun String.removeRange(range:
IntRange): String =\r\n (this as CharSequence).removeRange(range).toString()\r\n\r\n/**\r\n * If this char
sequence starts with the given [prefix], returns a new char sequence\r\n * with the prefix removed. Otherwise,
returns a new char sequence with the same characters.\r\n */\r\n\r\npublic fun CharSequence.removePrefix(prefix:
CharSequence): CharSequence {\r\n if (startsWith(prefix)) {\r\n return subSequence(prefix.length, length)\r\n
}\r\n return subSequence(0, length)\r\n}\r\n\r\n/**\r\n * If this string starts with the given [prefix], returns a copy
of this string\r\n * with the prefix removed. Otherwise, returns this string.\r\n */\r\n\r\npublic fun
String.removePrefix(prefix: CharSequence): String {\r\n if (startsWith(prefix)) {\r\n return
substring(prefix.length)\r\n }\r\n return this\r\n}\r\n\r\n/**\r\n * If this char sequence ends with the given
[suffix], returns a new char sequence\r\n * with the suffix removed. Otherwise, returns a new char sequence with the
same characters.\r\n */\r\n\r\npublic fun CharSequence.removeSuffix(suffix: CharSequence): CharSequence {\r\n if
(endsWith(suffix)) {\r\n return subSequence(0, length - suffix.length)\r\n }\r\n return subSequence(0,
length)\r\n}\r\n\r\n/**\r\n * If this string ends with the given [suffix], returns a copy of this string\r\n * with the
suffix removed. Otherwise, returns this string.\r\n */\r\n\r\npublic fun String.removeSuffix(suffix: CharSequence):
String {\r\n if (endsWith(suffix)) {\r\n return substring(0, length - suffix.length)\r\n }\r\n return
this\r\n}\r\n\r\n/**\r\n * When this char sequence starts with the given [prefix] and ends with the given [suffix],\r\n *
returns a new char sequence having both the given [prefix] and [suffix] removed.\r\n * Otherwise returns a new char
sequence with the same characters.\r\n */\r\n\r\npublic fun CharSequence.removeSurrounding(prefix: CharSequence,
suffix: CharSequence): CharSequence {\r\n if ((length >= prefix.length + suffix.length) && startsWith(prefix) &&
endsWith(suffix)) {\r\n return subSequence(prefix.length, length - suffix.length)\r\n }\r\n return
subSequence(0, length)\r\n}\r\n\r\n/**\r\n * Removes from a string both the given [prefix] and [suffix] if and only
if\r\n * it starts with the [prefix] and ends with the [suffix].\r\n * Otherwise returns this string unchanged.\r\n
*/\r\n\r\npublic fun String.removeSurrounding(prefix: CharSequence, suffix: CharSequence): String {\r\n if ((length

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>= prefix.length + suffix.length) && startsWith(prefix) && endsWith(suffix)) {\r\n    return
substring(prefix.length, length - suffix.length)\r\n } \r\n    return this\r\n}\r\n\r\n/**\r\n * When this char sequence
starts with and ends with the given [delimiter],\r\n * returns a new char sequence having this [delimiter] removed
both from the start and end.\r\n * Otherwise returns a new char sequence with the same characters.\r\n */\r\n\r\npublic
fun CharSequence.removeSurrounding(delimiter: CharSequence): CharSequence = removeSurrounding(delimiter,
delimiter)\r\n\r\n/**\r\n * Removes the given [delimiter] string from both the start and the end of this string\r\n * if
and only if it starts with and ends with the [delimiter].\r\n * Otherwise returns this string unchanged.\r\n */\r\n\r\npublic
fun String.removeSurrounding(delimiter: CharSequence): String = removeSurrounding(delimiter,
delimiter)\r\n\r\n/**\r\n * Replace part of string before the first occurrence of given delimiter with the [replacement]
string.\r\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which defaults to the
original string.\r\n */\r\n\r\npublic fun String.replaceBefore(delimiter: Char, replacement: String,
missingDelimiterValue: String = this): String {\r\n    val index = indexOf(delimiter)\r\n    return if (index == -1)
missingDelimiterValue else replaceRange(0, index, replacement)\r\n}\r\n\r\n\r\n/**\r\n * Replace part of string before
the first occurrence of given delimiter with the [replacement] string.\r\n * If the string does not contain the delimiter,
returns [missingDelimiterValue] which defaults to the original string.\r\n */\r\n\r\npublic fun
String.replaceBefore(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\r\n    val
index = indexOf(delimiter)\r\n    return if (index == -1) missingDelimiterValue else replaceRange(0, index,
replacement)\r\n}\r\n\r\n\r\n/**\r\n * Replace part of string after the first occurrence of given delimiter with the
[replacement] string.\r\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which
defaults to the original string.\r\n */\r\n\r\npublic fun String.replaceAfter(delimiter: Char, replacement: String,
missingDelimiterValue: String = this): String {\r\n    val index = indexOf(delimiter)\r\n    return if (index == -1)
missingDelimiterValue else replaceRange(index + 1, length, replacement)\r\n}\r\n\r\n\r\n/**\r\n * Replace part of string
after the first occurrence of given delimiter with the [replacement] string.\r\n * If the string does not contain the
delimiter, returns [missingDelimiterValue] which defaults to the original string.\r\n */\r\n\r\npublic fun
String.replaceAfter(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\r\n    val
index = indexOf(delimiter)\r\n    return if (index == -1) missingDelimiterValue else replaceRange(index +
delimiter.length, length, replacement)\r\n}\r\n\r\n\r\n/**\r\n * Replace part of string after the last occurrence of given
delimiter with the [replacement] string.\r\n * If the string does not contain the delimiter, returns
[missingDelimiterValue] which defaults to the original string.\r\n */\r\n\r\npublic fun String.replaceAfterLast(delimiter:
String, replacement: String, missingDelimiterValue: String = this): String {\r\n    val index =
lastIndexOf(delimiter)\r\n    return if (index == -1) missingDelimiterValue else replaceRange(index +
delimiter.length, length, replacement)\r\n}\r\n\r\n\r\n/**\r\n * Replace part of string after the last occurrence of given
delimiter with the [replacement] string.\r\n * If the string does not contain the delimiter, returns
[missingDelimiterValue] which defaults to the original string.\r\n */\r\n\r\npublic fun String.replaceAfterLast(delimiter:
Char, replacement: String, missingDelimiterValue: String = this): String {\r\n    val index =
lastIndexOf(delimiter)\r\n    return if (index == -1) missingDelimiterValue else replaceRange(index + 1, length,
replacement)\r\n}\r\n\r\n\r\n/**\r\n * Replace part of string before the last occurrence of given delimiter with the
[replacement] string.\r\n * If the string does not contain the delimiter, returns [missingDelimiterValue] which
defaults to the original string.\r\n */\r\n\r\npublic fun String.replaceBeforeLast(delimiter: Char, replacement: String,
missingDelimiterValue: String = this): String {\r\n    val index = lastIndexOf(delimiter)\r\n    return if (index == -1)
missingDelimiterValue else replaceRange(0, index, replacement)\r\n}\r\n\r\n\r\n/**\r\n * Replace part of string before
the last occurrence of given delimiter with the [replacement] string.\r\n * If the string does not contain the delimiter,
returns [missingDelimiterValue] which defaults to the original string.\r\n */\r\n\r\npublic fun
String.replaceBeforeLast(delimiter: String, replacement: String, missingDelimiterValue: String = this): String {\r\n    val
index = lastIndexOf(delimiter)\r\n    return if (index == -1) missingDelimiterValue else replaceRange(0, index,
replacement)\r\n}\r\n\r\n\r\n// public fun String.replace(oldChar: Char, newChar: Char, ignoreCase: Boolean): String
// JVM- and JS-specific\r\n// public fun String.replace(oldValue: String, newValue: String, ignoreCase: Boolean):
String // JVM- and JS-specific\r\n\r\n\r\n/**\r\n * Returns a new string obtained by replacing each substring of this char

```

sequence that matches the given regular expression with the given [replacement]. The [replacement] can consist of any combination of literal text and \$-substitutions. To treat the replacement string literally escape it with the [kotlin.text.Regex.Companion.escapeReplacement] method.

```

@kotlin.internal.InlineOnly
public inline fun CharSequence.replace(regex: Regex, replacement: String):
String = regex.replace(this, replacement)
Returns a new string obtained by replacing each substring
of this char sequence that matches the given regular expression with the result of the given function [transform]
that takes [MatchResult] and returns a string to be used as a replacement for that match.

@kotlin.internal.InlineOnly
public inline fun CharSequence.replace(regex: Regex, noinline transform:
(MatchResult) -> CharSequence): String =
regex.replace(this, transform)
Replaces the first
occurrence of the given regular expression [regex] in this char sequence with specified [replacement] expression.

@param replacement A replacement expression that can include substitutions. See [Regex.replaceFirst] for
details.

@kotlin.internal.InlineOnly
public inline fun CharSequence.replaceFirst(regex: Regex,
replacement: String): String = regex.replaceFirst(this, replacement)
Returns `true` if this char
sequence matches the given regular expression.

@kotlin.internal.InlineOnly
public infix fun
CharSequence.matches(regex: Regex): Boolean = regex.matches(this)
Implementation of
[regionMatches] for CharSequences.
Invoked when it's already known that arguments are not Strings, so that
no additional type checks are performed.

internal fun CharSequence.regionMatchesImpl(thisOffset: Int,
other: CharSequence, otherOffset: Int, length: Int, ignoreCase: Boolean): Boolean {
if ((otherOffset < 0) ||
(thisOffset < 0) || (thisOffset > this.length - length) || (otherOffset > other.length - length)) {
return false
}
for (index in 0 until length) {
if (!this[thisOffset + index].equals(other[otherOffset + index],
ignoreCase))
return false
}
return true
}
Returns `true` if this char sequence
starts with the specified character.

public fun CharSequence.startsWith(char: Char, ignoreCase: Boolean =
false): Boolean =
this.length > 0 && this[0].equals(char, ignoreCase)
Returns `true` if this char
sequence ends with the specified character.

public fun CharSequence.endsWith(char: Char, ignoreCase:
Boolean = false): Boolean =
this.length > 0 && this[lastIndex].equals(char, ignoreCase)
Returns `true` if this char sequence starts with the specified prefix.

public fun
CharSequence.startsWith(prefix: CharSequence, ignoreCase: Boolean = false): Boolean {
if (!ignoreCase &&
this is String && prefix is String)
return this.startsWith(prefix)
else
return
regionMatchesImpl(0, prefix, 0, prefix.length, ignoreCase)
}
Returns `true` if a substring of this
char sequence starting at the specified offset [startIndex] starts with the specified prefix.

public fun
CharSequence.startsWith(prefix: CharSequence, startIndex: Int, ignoreCase: Boolean = false): Boolean {
if
(!ignoreCase && this is String && prefix is String)
return this.startsWith(prefix, startIndex)
else
return regionMatchesImpl(startIndex, prefix, 0, prefix.length, ignoreCase)
}
Returns `true` if this
char sequence ends with the specified suffix.

public fun CharSequence.endsWith(suffix: CharSequence,
ignoreCase: Boolean = false): Boolean {
if (!ignoreCase && this is String && suffix is String)
return
this.endsWith(suffix)
else
return regionMatchesImpl(length - suffix.length, suffix, 0, suffix.length,
ignoreCase)
}
Returns the longest string `prefix` such that
this char sequence and [other] char sequence both start with this prefix, taking care not to split surrogate
pairs.
If this and [other] have no common prefix, returns the empty string.

@param ignoreCase `true`
to ignore character case when matching a character. By default `false`.

@sample
samples.text.Strings.commonPrefixWith

public fun CharSequence.commonPrefixWith(other:
CharSequence, ignoreCase: Boolean = false): String {
val shortestLength = minOf(this.length,
other.length)
var i = 0
while (i < shortestLength && this[i].equals(other[i], ignoreCase = ignoreCase))
{
i++
}
if (this.hasSurrogatePairAt(i - 1) || other.hasSurrogatePairAt(i - 1)) {
i--
}
return subSequence(0, i).toString()
}
Returns the longest string `suffix` such that this char
sequence and [other] char sequence both end with this suffix, taking care not to split surrogate pairs.
If this and [other] have no common suffix, returns the empty string.

@param ignoreCase `true` to ignore
character case when matching a character. By default `false`.

@sample

```



any of the specified [strings] in this char sequence, starting from the specified [startIndex] and optionally ignoring the case.

`findAnyOf(strings, startIndex, ignoreCase, last = true)` Finds the index of the first occurrence of any of the specified [strings] in this char sequence, starting from the specified [startIndex] and optionally ignoring the case.

`findAnyOf(strings, startIndex, ignoreCase, last = false)` Finds the index of the last occurrence of any of the specified [strings] in this char sequence, starting from the specified [startIndex] and optionally ignoring the case.

`indexOfAny(strings, startIndex, ignoreCase)` Returns the index within this string of the first occurrence of the specified character, starting from the specified [startIndex].

`indexOfAny(charArrayOf(char), startIndex, ignoreCase)` Returns the index within this char sequence of the first occurrence of the specified [string], starting from the specified [startIndex].

`indexOf(string, startIndex, length, ignoreCase)` Returns the index within this char sequence of the last occurrence of the specified character, starting from the specified [startIndex].

`lastIndexOf(char, startIndex, ignoreCase)` Returns the index within this char sequence of the last occurrence of the specified [string], starting from the specified [startIndex].

`lastIndexOfAny(charArrayOf(char), startIndex, ignoreCase)` Returns the index within this char sequence of the last occurrence of the specified [string], starting from the specified [startIndex].



limit The maximum number of substrings to return. Zero by default means no limit is set.

To avoid ambiguous results when strings in [delimiters] have characters in common, this method proceeds from the beginning to the end of this string, and finds at each position the first element in [delimiters] that matches this string at that position.

```
private fun CharSequence.rangesDelimitedBy(delimiters: Array<out String>,
startIndex: Int = 0, ignoreCase: Boolean = false, limit: Int = 0): Sequence<IntRange> {
    require(limit >= 0, {
        "Limit must be non-negative, but was $limit."
    })
    val delimitersList = delimiters.asList()
    return DelimitedRangesSequence(this, startIndex, limit, {
        currentIndex -> findAnyOf(delimitersList, currentIndex,
            ignoreCase = ignoreCase, last = false)
    }.let { it.first to it.second.length })
}
```

Splits this char sequence to a sequence of strings around occurrences of the specified [delimiters].

@param delimiters One or more strings to be used as delimiters.

@param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.

@param limit The maximum number of substrings to return. Zero by default means no limit is set.

To avoid ambiguous results when strings in [delimiters] have characters in common, this method proceeds from the beginning to the end of this string, and finds at each position the first element in [delimiters] that matches this string at that position.

```
public fun CharSequence.splitToSequence(vararg delimiters: String, ignoreCase: Boolean = false, limit: Int = 0):
Sequence<String> = rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).map { substring(it) }
```

Splits this char sequence to a list of strings around occurrences of the specified [delimiters].

@param delimiters One or more strings to be used as delimiters.

@param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.

@param limit The maximum number of substrings to return. Zero by default means no limit is set.

To avoid ambiguous results when strings in [delimiters] have characters in common, this method proceeds from the beginning to the end of this string, and matches at each position the first element in [delimiters] that is equal to a delimiter in this instance at that position.

```
public fun CharSequence.split(vararg delimiters: String, ignoreCase: Boolean = false, limit: Int = 0): List<String> {
    if (delimiters.size == 1) {
        val delimiter = delimiters[0]
        if (!delimiter.isEmpty())
            return split(delimiter, ignoreCase, limit)
    }
    return rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).asIterable().map { substring(it) }
```

Splits this char sequence to a sequence of strings around occurrences of the specified [delimiters].

@param delimiters One or more characters to be used as delimiters.

@param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.

@param limit The maximum number of substrings to return.

```
public fun CharSequence.splitToSequence(vararg delimiters: Char, ignoreCase: Boolean = false, limit: Int = 0): Sequence<String> =
rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).map { substring(it) }
```

Splits this char sequence to a list of strings around occurrences of the specified [delimiters].

@param delimiters One or more characters to be used as delimiters.

@param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.

@param limit The maximum number of substrings to return.

```
public fun CharSequence.split(vararg delimiters: Char, ignoreCase: Boolean = false, limit: Int = 0): List<String> {
    if (delimiters.size == 1) {
        return split(delimiters[0].toString(), ignoreCase, limit)
    }
    return rangesDelimitedBy(delimiters, ignoreCase = ignoreCase, limit = limit).asIterable().map { substring(it) }
```

Splits this char sequence to a list of strings around occurrences of the specified [delimiter].

\* This is specialized version of split which receives single non-empty delimiter and offers better performance

@param delimiter String used as delimiter

@param ignoreCase `true` to ignore character case when matching a delimiter. By default `false`.

@param limit The maximum number of substrings to return.

```
private fun CharSequence.split(delimiter: String, ignoreCase: Boolean, limit: Int): List<String> {
    require(limit >= 0, {
        "Limit must be non-negative, but was $limit."
    })
    var currentOffset = 0
    var nextIndex = indexOf(delimiter, currentOffset, ignoreCase)
    if (nextIndex == -1 || limit == 1) {
        return listOf(this.toString())
    }
    val isLimited = limit > 0
    val result = ArrayList<String>(if (isLimited) limit.coerceAtMost(10) else 10)
    do {
        result.add(substring(currentOffset, nextIndex))
        currentOffset = nextIndex + delimiter.length
    } // Do not search for next occurrence if we're reaching limit
}
```

```

    if (isLimited && result.size == limit - 1) break\r\n        nextIndex = indexOf(delimiter, currentOffset,
ignoreCase)\r\n    } while (nextIndex != -1)\r\n\r\n    result.add(substring(currentOffset, length))\r\n    return
result\r\n}\r\n\r\n/**\r\n * Splits this char sequence around matches of the given regular expression.\r\n * \r\n * @param limit Non-negative value specifying the maximum number of substrings to return.\r\n * \r\n * Zero by default
means no limit is set.\r\n * \r\n * @kotlin.internal.InlineOnly\r\n * public inline fun CharSequence.split(regex: Regex,
limit: Int = 0): List<String> = regex.split(this, limit)\r\n * \r\n * Splits this char sequence to a sequence of lines
delimited by any of the following character sequences: CRLF, LF or CR.\r\n * \r\n * The lines returned do not
include terminating line separators.\r\n * \r\n * public fun CharSequence.lineSequence(): Sequence<String> =
splitToSequence("\\r\\n", "\\n", "\\r")\r\n * \r\n * Splits this char sequence to a list of lines delimited by any
of the following character sequences: CRLF, LF or CR.\r\n * \r\n * The lines returned do not include terminating line
separators.\r\n * \r\n * public fun CharSequence.lines(): List<String> = lineSequence().toList()\r\n * \r\n * Copyright
2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * \r\n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n * \r\n * \r\n * package
kotlin.text\r\n * \r\n * import kotlin.js.RegExp\r\n * \r\n * /**\r\n * \r\n * Converts the characters in the specified array to a
string.\r\n * \r\n * @SinceKotlin("1.2")\r\n * public actual fun String(chars: CharArray): String {\r\n    var result =
""\r\n    for (char in chars) {\r\n        result += char\r\n    }\r\n    return result\r\n}\r\n * \r\n * Converts the
characters from a portion of the specified array to a string.\r\n * \r\n * @throws IndexOutOfBoundsException if
either [offset] or [length] are less than zero\r\n * or `offset + length` is out of [chars] array bounds.\r\n * \r\n
* \r\n * @SinceKotlin("1.2")\r\n * public actual fun String(chars: CharArray, offset: Int, length: Int): String {\r\n    if
(offset < 0 || length < 0 || chars.size - offset < length)\r\n        throw IndexOutOfBoundsException("size:
${chars.size}; offset: $offset; length: $length")\r\n    var result = ""\r\n    for (index in offset until offset + length)
{\r\n        result += chars[index]\r\n    }\r\n    return result\r\n}\r\n * \r\n * Concatenates characters in this
[CharArray] into a String.\r\n * \r\n * @SinceKotlin("1.3")\r\n * @ExperimentalStdlibApi\r\n * public actual fun
CharArray.concatToString(): String {\r\n    var result = ""\r\n    for (char in this) {\r\n        result += char\r\n    }\r\n
return result\r\n}\r\n * \r\n * Concatenates characters in this [CharArray] or its subrange into a String.\r\n * \r\n
* @param startIndex the beginning (inclusive) of the subrange of characters, 0 by default.\r\n * @param endIndex
the end (exclusive) of the subrange of characters, size of this array by default.\r\n * \r\n * @throws
IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the size of this array.\r\n *
\r\n * @throws IllegalArgumentException if [startIndex] is greater than [endIndex].\r\n * \r\n
* \r\n * @SinceKotlin("1.3")\r\n * @Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\r\n * @E
xperimentalStdlibApi\r\n * public actual fun CharArray.concatToString(startIndex: Int = 0, endIndex: Int = this.size):
String {\r\n    AbstractList.checkBoundsIndexes(startIndex, endIndex, this.size)\r\n    var result = ""\r\n    for
(index in startIndex until endIndex) {\r\n        result += this[index]\r\n    }\r\n    return result\r\n}\r\n * \r\n
Returns a [CharArray] containing characters of this string.\r\n * \r\n
* \r\n * @SinceKotlin("1.3")\r\n * @ExperimentalStdlibApi\r\n * public actual fun String.toCharArray(): CharArray {\r\n
return CharArray(length) { get(it) }\r\n}\r\n * \r\n * Returns a [CharArray] containing characters of this string
or its substring.\r\n * \r\n * @param startIndex the beginning (inclusive) of the substring, 0 by default.\r\n * @param
endIndex the end (exclusive) of the substring, length of this string by default.\r\n * \r\n * @throws
IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex] is greater than the length of this
string.\r\n * @throws IllegalArgumentException if [startIndex] is greater than [endIndex].\r\n * \r\n
* \r\n * @SinceKotlin("1.3")\r\n * @Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\r\n * @E
xperimentalStdlibApi\r\n * public actual fun String.toCharArray(startIndex: Int = 0, endIndex: Int = this.length):
CharArray {\r\n    AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\r\n    return CharArray(endIndex
- startIndex) { get(startIndex + it) }\r\n}\r\n * \r\n * Decodes a string from the bytes in UTF-8 encoding in this
array.\r\n * \r\n * Malformed byte sequences are replaced by the replacement char `\\uFFFD`.\r\n * \r\n
* \r\n * @SinceKotlin("1.3")\r\n * @ExperimentalStdlibApi\r\n * public actual fun ByteArray.decodeToString(): String
{\r\n    return decodeUtf8(this, 0, size, false)\r\n}\r\n * \r\n * Decodes a string from the bytes in UTF-8 encoding
in this array or its subrange.\r\n * \r\n * @param startIndex the beginning (inclusive) of the subrange to decode, 0 by

```

```

default.\r\n * @param endIndex the end (exclusive) of the subrange to decode, size of this array by default.\r\n *
 * @param throwOnInvalidSequence specifies whether to throw an exception on malformed byte sequence or replace
it by the replacement char `\\uFFFD`.\r\n * @throws IndexOutOfBoundsException if [startIndex] is less than
zero or [endIndex] is greater than the size of this array.\r\n * @throws IllegalArgumentException if [startIndex] is
greater than [endIndex].\r\n * @throws CharacterCodingException if the byte array contains malformed UTF-8 byte
sequence and [throwOnInvalidSequence] is true.\r\n
 * \r\n @SinceKotlin("1.3")\r\n @Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\r\n @E
xperimentalStdlibApi\r\n public actual fun ByteArray.decodeToString(\r\n     startIndex: Int = 0,\r\n     endIndex: Int =
this.size,\r\n     throwOnInvalidSequence: Boolean = false\r\n): String {\r\n
AbstractList.checkBoundsIndexes(startIndex, endIndex, this.size)\r\n     return decodeUtf8(this, startIndex, endIndex,
throwOnInvalidSequence)\r\n}\r\n\r\n/**\r\n * Encodes this string to an array of bytes in UTF-8 encoding.\r\n * \r\n
 * Any malformed char sequence is replaced by the replacement byte sequence.\r\n
 * \r\n @SinceKotlin("1.3")\r\n @ExperimentalStdlibApi\r\n public actual fun String.encodeToByteArray():
ByteArray {\r\n     return encodeUtf8(this, 0, length, false)\r\n}\r\n\r\n/**\r\n * Encodes this string or its substring to
an array of bytes in UTF-8 encoding.\r\n * \r\n * @param startIndex the beginning (inclusive) of the substring to
encode, 0 by default.\r\n * @param endIndex the end (exclusive) of the substring to encode, length of this string by
default.\r\n * @param throwOnInvalidSequence specifies whether to throw an exception on malformed char
sequence or replace.\r\n * \r\n * @throws IndexOutOfBoundsException if [startIndex] is less than zero or [endIndex]
is greater than the length of this string.\r\n * @throws IllegalArgumentException if [startIndex] is greater than
[endIndex].\r\n * @throws CharacterCodingException if this string contains malformed char sequence and
[throwOnInvalidSequence] is true.\r\n
 * \r\n @SinceKotlin("1.3")\r\n @Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\r\n @E
xperimentalStdlibApi\r\n public actual fun String.encodeToByteArray(\r\n     startIndex: Int = 0,\r\n     endIndex: Int =
this.length,\r\n     throwOnInvalidSequence: Boolean = false\r\n): ByteArray {\r\n
AbstractList.checkBoundsIndexes(startIndex, endIndex, length)\r\n     return encodeUtf8(this, startIndex, endIndex,
throwOnInvalidSequence)\r\n}\r\n\r\n/**\r\n * Returns a copy of this string converted to upper case using the rules
of the default locale.\r\n * \r\n * @sample samples.text.Strings.toUpperCase\r\n
 * \r\n @kotlin.internal.InlineOnly\r\n public actual inline fun String.toUpperCase(): String =
asDynamic().toUpperCase()\r\n\r\n/**\r\n * Returns a copy of this string converted to lower case using the rules of
the default locale.\r\n * \r\n * @sample samples.text.Strings.toLowerCase\r\n
 * \r\n @kotlin.internal.InlineOnly\r\n public actual inline fun String.toLowerCase(): String =
asDynamic().toLowerCase()\r\n\r\n @kotlin.internal.InlineOnly\r\n internal actual inline fun
String.nativeIndexOf(str: String, fromIndex: Int): Int = asDynamic().indexOf(str,
fromIndex)\r\n\r\n @kotlin.internal.InlineOnly\r\n internal actual inline fun String.nativeLastIndexOf(str: String,
fromIndex: Int): Int = asDynamic().lastIndexOf(str, fromIndex)\r\n\r\n @kotlin.internal.InlineOnly\r\n internal inline
fun String.nativeStartsWith(s: String, position: Int): Boolean = asDynamic().startsWith(
s, position)\r\n\r\n @kotlin.internal.InlineOnly\r\n internal inline fun String.nativeEndsWith(s: String): Boolean =
asDynamic().endsWith(s)\r\n\r\n @kotlin.internal.InlineOnly\r\n public actual inline fun String.substring(startIndex:
Int): String = asDynamic().substring(startIndex)\r\n\r\n @kotlin.internal.InlineOnly\r\n public actual inline fun
String.substring(startIndex: Int, endIndex: Int): String = asDynamic().substring(startIndex,
endIndex)\r\n\r\n @kotlin.internal.InlineOnly\r\n public inline fun String.concat(str: String): String =
asDynamic().concat(str)\r\n\r\n @kotlin.internal.InlineOnly\r\n public inline fun String.match(regex: String):
Array<String>? = asDynamic().match(regex)\r\n\r\n // native public fun String.trim(): String\r\n // TODO:
String.replace to implement effective trimLeading and trimTrailing\r\n\r\n @kotlin.internal.InlineOnly\r\n internal
inline fun String.nativeReplace(pattern: RegExp, replacement: String): String = asDynamic().replace(pattern,
replacement)\r\n\r\n @SinceKotlin("1.2")\r\n @Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUME
NTS")\r\n public actual fun String.compareTo(other: String, ignoreCase: Boolean = false): Int {\r\n     if
(ignoreCase) {\r\n         val n1 = this.length\r\n         val n2 = other.length\r\n         val min = minOf(n1, n2)\r\n         if

```

```

(min == 0) return n1 - n2\r\n    var start = 0\r\n    while (true) {\r\n        val end = minOf(start + 16, min)\r\n        var s1 = this.substring(start, end)\r\n        var s2 = other.substring(start, end)\r\n        if (s1 != s2) {\r\n            s1 = s1.toUpperCase()\r\n            s2 = s2.toUpperCase()\r\n            if (s1 != s2) {\r\n                s1 = s1.toLowerCase()\r\n                s2 = s2.toLowerCase()\r\n                if (s1 != s2) {\r\n                    return s1.compareTo(s2)\r\n                }\r\n            }\r\n            if (end == min) break\r\n            start = end\r\n        }\r\n        return n1 - n2\r\n    } else {\r\n        return compareTo(other)\r\n    }\r\n}\r\n\r\nprivate val STRING_CASE_INSENSITIVE_ORDER = Comparator<String> { a, b -> a.compareTo(b, ignoreCase = true) }\r\n\r\n@SinceKotlin("1.2")\r\npublic actual val String.Companion.CASE_INSENSITIVE_ORDER: Comparator<String>\r\n    get() = STRING_CASE_INSENSITIVE_ORDER\r\n\r\n/*\r\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\n// Auto-generated file. DO NOT EDIT!\r\n\r\npackage kotlin\r\n\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\npublic inline class UByteArray\r\n    @Suppress("NON_PUBLIC_PRIMARY_CONSTRUCTOR_OF_INLINE_CLASS")\r\n    @PublishedApi\r\n    internal constructor(@PublishedApi internal val storage: ByteArray) : Collection<UByte> {\r\n\r\n    /**\r\n     * Creates a new array of the specified [size], with all elements initialized to zero. *\r\n     * public constructor(size: Int) : this(ByteArray(size))\r\n     */\r\n     * Returns the array element at the given [index]. This method can be called using the index operator.\r\n     * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\r\n     * where the behavior is unspecified.\r\n     * public operator fun get(index: Int): UByte = storage[index].toUByte()\r\n     * Sets the element at the given [index] to the given [value]. This method can be called using the index operator.\r\n     * If the [index] is out of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\r\n     * where the behavior is unspecified.\r\n     * public operator fun set(index: Int, value: UByte) {\r\n         storage[index] = value.toByte()\r\n     }\r\n     /**\r\n     * Returns the number of elements in the array. *\r\n     * public override val size: Int get() = storage.size\r\n     */\r\n     * Creates an iterator over the elements of the array. *\r\n     * public override operator fun iterator(): UByteIterator = Iterator(storage)\r\n     private class Iterator(private val array: ByteArray) : UByteIterator() {\r\n         private var index = 0\r\n         override fun hasNext() = index < array.size\r\n         override fun nextUByte() = if (index < array.size) array[index++].toUByte() else throw NoSuchElementException(index.toString())\r\n     }\r\n     override fun contains(element: UByte): Boolean {\r\n         // TODO: Eliminate this check after KT-30016 gets fixed.\r\n         // Currently JS BE does not generate special bridge method for this method.\r\n         if ((element as Any?) !is UByte) return false\r\n         return storage.contains(element.toByte())\r\n     }\r\n     override fun containsAll(elements: Collection<UByte>): Boolean {\r\n         return (elements as Collection<*>).all { it is UByte && storage.contains(it.toByte()) }\r\n     }\r\n     override fun isEmpty(): Boolean = this.storage.size == 0\r\n}\r\n\r\n/*\r\n * Creates a new array of the specified [size], where each element is calculated by calling the specified\r\n * [init] function.\r\n * The function [init] is called for each array element sequentially starting from the first one.\r\n * It should return the value for an array element given its index.\r\n */\r\n\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic inline fun UByteArray(size: Int, init: (Int) -> UByte): UByteArray {\r\n    return UByteArray(ByteArray(size) { index -> init(index).toByte() })\r\n}\r\n\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic inline fun ubyteArrayOf(vararg elements: UByte): UByteArray = elements\r\n\r\n/*\r\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\n// Auto-generated file. DO NOT EDIT!\r\n\r\npackage kotlin\r\n\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\npublic inline class UIntArray\r\n    @Suppress("NON_PUBLIC_PRIMARY_CONSTRUCTOR_OF_INLINE_CLASS")\r\n    @PublishedApi\r\n    internal constructor(@PublishedApi internal val storage: IntArray) : Collection<UInt> {\r\n\r\n    /**\r\n     * Creates a new array of the specified [size], with all elements initialized to zero. *\r\n     * public constructor(size: Int) : this(IntArray(size))\r\n     */\r\n     * Returns the array element at the given [index]. This method can be called

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using the index operator.\r\n    * If the [index] is out of bounds of this array, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\r\n    * where the behavior is unspecified.\r\n    * public
operator fun get(index: Int): UInt = storage[index].toUInt()\r\n\r\n    /**\r\n    * Sets the element at the given [index]
to the given [value]. This method can be called using the index operator.\r\n    * If the [index] is out of
bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\r\n    * where the behavior is
unspecified.\r\n    * public operator fun set(index: Int, value: UInt) {\r\n    storage[index] = value.toInt()\r\n
}\r\n\r\n    /** Returns the number of elements in the array. */\r\n    public override val size: Int get() =
storage.size\r\n\r\n    /** Creates an iterator over the elements of the array. */\r\n    public override operator fun
iterator(): UIntIterator = Iterator(storage)\r\n\r\n    private class Iterator(private val array: IntArray) : UIntIterator()
{\r\n    private var index = 0\r\n    override fun hasNext() = index < array.size\r\n    override fun nextUInt() =
if (index < array.size) array[index++].toUInt() else throw NoSuchElementException(index.toString())\r\n    }\r\n\r\n
    override fun contains(element: UInt): Boolean {\r\n    // TODO: Eliminate this check after KT-30016 gets
fixed.\r\n    // Currently JS BE does not generate special bridge method for this method.\r\n    if ((element as
Any?) !is UInt) return false\r\n\r\n    return storage.contains(element.toInt())\r\n    }\r\n\r\n    override fun
containsAll(elements: Collection<UInt>): Boolean {\r\n    return (elements as Collection<*>).all { it is UInt &&
storage.contains(it.toInt()) }\r\n    }\r\n\r\n    override fun isEmpty(): Boolean = this.storage.size ==
0\r\n}\r\n\r\n/**\r\n * Creates a new array of the specified [size], where each element is calculated by calling the
specified\r\n * [init] function.\r\n * The function [init] is called for each array element sequentially starting
from the first one.\r\n * It should return the value for an array element given its index.\r\n
*/\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
UIntArray(size: Int, init: (Int) -> UInt): UIntArray {\r\n    return UIntArray(IntArray(size) { index ->
init(index).toInt()
})\r\n}\r\n\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic
inline fun uintArrayOf(vararg elements: UInt): UIntArray = elements\r\n", "*/\r\n * Copyright 2010-2019 JetBrains
s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\n// Auto-generated file. DO NOT
EDIT!\r\n\r\npackage kotlin\r\n\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\npublic inline class
ULongArray\r\n@Suppress("NON_PUBLIC_PRIMARY_CONSTRUCTOR_OF_INLINE_CLASS")\r\n@PublishedApi\r\ninternal constructor(@PublishedApi internal val storage: LongArray) : Collection<ULong> {\r\n\r\n    /**
Creates a new array of the specified [size], with all elements initialized to zero. */\r\n    public constructor(size: Int) :
this(LongArray(size))\r\n\r\n    /**\r\n    * Returns the array element at the given [index]. This method can be called
using the index operator.\r\n    * If the [index] is out of bounds of this array, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\r\n    * where the behavior is unspecified.\r\n    * public
operator fun get(index: Int): ULong = storage[index].toULong()\r\n\r\n    /**\r\n    * Sets the element at the given
[index] to the given [value]. This method can be called using the index operator.\r\n    * If the [index] is out
of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\r\n    * where the behavior is
unspecified.\r\n    * public operator fun set(index: Int, value: ULong) {\r\n    storage[index] =
value.toLong()\r\n    }\r\n\r\n    /** Returns the number of elements in the array. */\r\n    public override val size: Int
get() = storage.size\r\n\r\n    /** Creates an iterator over the elements of the array. */\r\n    public override operator
fun iterator(): ULongIterator = Iterator(storage)\r\n\r\n    private class Iterator(private val array: LongArray) :
ULongIterator() {\r\n    private var index = 0\r\n    override fun hasNext() = index < array.size\r\n    override
fun nextULong() = if (index < array.size) array[index++].toULong() else throw
NoSuchElementException(index.toString())\r\n    }\r\n\r\n    override fun contains(element: ULong): Boolean {\r\n
// TODO: Eliminate this check after KT-30016 gets fixed.\r\n    // Currently JS BE does not generate special
bridge method for this method.\r\n    if ((element as Any?) !is ULong) return false\r\n\r\n    return
storage.contains(element.toLong())\r\n    }\r\n\r\n    override fun containsAll(elements: Collection<ULong>):
Boolean {\r\n    return (elements as Collection<*>).all { it is ULong && storage.contains(it.toLong()) }\r\n
}\r\n\r\n    override fun isEmpty(): Boolean = this.storage.size == 0\r\n}\r\n\r\n/**\r\n * Creates a new array of the

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specified [size], where each element is calculated by calling the specified [init] function. The function [init] is called for each array element sequentially starting from the first one. It should return the value for an array element given its index.

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@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly\npublic inline fun\n    ULongArray(size: Int, init: (Int) -> ULong): ULongArray {\n    return ULongArray(LongArray(size) { index ->\n        init(index).toLong()\n    })\n}\n\n@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly\npublic inline fun\n    ulongArrayOf(vararg elements: ULong): ULongArray = elements\n\n/**\n * Copyright 2010-2019\n * JetBrains s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the\n * Apache 2.0 license that can be found in the license/LICENSE.txt file.\n */\n\n// Auto-generated file. DO NOT\n// EDIT!\n\npackage kotlin\nimport\n    kotlin.experimental.\n\n@Suppress("NON_PUBLIC_PRIMARY_CONSTRUCTOR_OF_INLINE_CLASS")\n@SinceKotlin("1.3")@ExperimentalUnsignedTypes\npublic inline class ULong @PublishedApi internal\n    constructor(@PublishedApi internal val data: Long) : Comparable<ULong> {\n    companion object {\n\n        /**\n         * A constant holding the minimum value an instance of ULong can have.\n         */\n        public\n            const val MIN_VALUE: ULong = ULong(0)\n\n        /**\n         * A constant holding the maximum value an\n         * instance of ULong can have.\n         */\n        public\n            const val MAX_VALUE: ULong = ULong(-1)\n\n        /**\n         * The number of bytes used to represent an instance of ULong in a binary form.\n         */\n        public\n            const val SIZE_BYTES: Int = 8\n\n        /**\n         * The number of bits used to represent an instance of\n         * ULong in a binary form.\n         */\n        public\n            const val SIZE_BITS: Int = 64\n    }\n\n    /**\n     * Compares this value with the specified value for order. Returns zero if this value is equal to the specified\n     * other value, a negative number if it's less than other, or a positive number if it's greater than other.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun\n        compareTo(other: UByte): Int =\n        this.compareTo(other.toULong())\n\n    /**\n     * Compares this value with the specified value for order. Returns zero if this value is equal to the specified\n     * other value, a negative number if it's less than other, or a positive number if it's greater than other.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun\n        compareTo(other: UShort): Int = this.compareTo(other.toULong())\n\n    /**\n     * Compares this value with\n     * the specified value for order. Returns zero if this value is equal to the specified other value, a negative\n     * number if it's less than other, or a positive number if it's greater than other.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun\n        compareTo(other: UInt): Int =\n        this.compareTo(other.toULong())\n\n    /**\n     * Compares this value with the specified value for order. Returns zero if this value is equal to the specified\n     * other value, a negative number if it's less than other, or a positive number if it's greater than other.\n     */\n    @kotlin.internal.InlineOnly\n    public\n        override inline operator fun\n            compareTo(other: ULong): Int\n        = ulongCompare(this.data, other.data)\n\n    /**\n     * Adds the other value to this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun\n        plus(other: UByte): ULong =\n        this.plus(other.toULong())\n\n    /**\n     * Adds the other value to this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun\n        plus(other: UShort): ULong = this.plus(other.toULong())\n\n    /**\n     * Adds the other value to\n     * this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun\n        plus(other: UInt): ULong =\n        this.plus(other.toULong())\n\n    /**\n     * Adds the other value to this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun\n        plus(other: ULong): ULong = ULong(this.data.plus(other.data))\n\n    /**\n     * Subtracts the\n     * other value from this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun\n        minus(other:\n            UByte): ULong = this.minus(other.toULong())\n\n    /**\n     * Subtracts the other value from this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun\n        minus(other: UShort): ULong =\n        this.minus(other.toULong())\n\n    /**\n     * Subtracts the other value from this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun\n        minus(other: UInt): ULong =\n        this.minus(other.toULong())\n\n    /**\n     * Subtracts the other value from this value.\n     */\n    @kotlin.internal.InlineOnly\n    public inline operator fun\n        minus(other: ULong): ULong =
```

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ULong(this.data.minus(other.data))\r\n\r\n /** Multiplies this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun times(other: UByte): ULong =
this.times(other.toULong())\r\n /** Multiplies this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun times(other: UShort): ULong =
this.times(other.toULong())\r\n /** Multiplies this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun times(other: UInt): ULong =
this.times(other.toULong())\r\n /** Multiplies this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun times(other: ULong): ULong =
ULong(this.data.times(other.data))\r\n\r\n /** Divides this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun div(other: UByte): ULong =
this.div(other.toULong())\r\n /** Divides this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun div(other: UShort): ULong = this.div(other.toULong())\r\n /** Divides this value by the
other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun div(other: UInt): ULong =
this.div(other.toULong())\r\n /** Divides this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun div(other: ULong): ULong = ulongDivide(this, other)\r\n\r\n /** Calculates the
remainder of dividing this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator
fun rem(other: UByte): ULong = this.rem(other.toULong())\r\n /** Calculates the remainder of dividing this value
by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun rem(other: UShort): ULong =
this.rem(other.toULong())\r\n /** Calculates the remainder of dividing this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun rem(other: UInt): ULong =
this.rem(other.toULong())\r\n /** Calculates the remainder of dividing this value by the other value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun rem(other: ULong): ULong = ulongRemainder(this,
other)\r\n\r\n /** Increments this value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun inc():
ULong = ULong(data.inc())\r\n /** Decrements this value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline
operator fun dec(): ULong = ULong(data.dec())\r\n\r\n /** Creates a range from this value to the specified [other]
value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline operator fun rangeTo(other: ULong): ULongRange =
ULongRange(this, other)\r\n\r\n /** Shifts this value left by the [bitCount] number of bits. */\r\n
@kotlin.internal.InlineOnly\r\n public inline infix fun shl(bitCount: Int): ULong = ULong(data shl bitCount)\r\n
/** Shifts this value right by the [bitCount] number of bits, filling the leftmost bits with zeros. */\r\n
@kotlin.internal.InlineOnly\r\n public inline infix fun shr(bitCount: Int): ULong = ULong(data ushr bitCount)\r\n
/** Performs a bitwise AND operation between the two values. */\r\n
@kotlin.internal.InlineOnly\r\n public
inline infix fun and(other: ULong): ULong = ULong(this.data and other.data)\r\n /** Performs a bitwise OR
operation between the two values. */\r\n
@kotlin.internal.InlineOnly\r\n public inline infix fun or(other: ULong):
ULong = ULong(this.data or other.data)\r\n /** Performs a bitwise XOR operation between the two values. */\r\n
@kotlin.internal.InlineOnly\r\n public inline infix fun xor(other: ULong): ULong = ULong(this.data xor
other.data)\r\n /** Inverts the bits in this value. */\r\n
@kotlin.internal.InlineOnly\r\n public inline fun inv():
ULong = ULong(data.inv())\r\n\r\n /**\r\n * Converts this [ULong] value to [Byte].\r\n * If this value
is less than or equals to [Byte.MAX_VALUE], the resulting `Byte` value represents\r\n * the same numerical
value as this `ULong`.\r\n * The resulting `Byte` value is represented by the least significant 8 bits of this
`ULong` value.\r\n * Note that the resulting `Byte` value may be negative.\r\n */\r\n
@kotlin.internal.InlineOnly\r\n public inline fun toByte(): Byte = data.toByte()\r\n /**\r\n * Converts this
[ULong] value to [Short].\r\n * If this value is less than or equals to [Short.MAX_VALUE], the resulting
`Short` value represents\r\n * the same numerical value as this `ULong`.\r\n * The resulting `Short`
value is represented by the least significant 16 bits of this `ULong` value.\r\n * Note that the resulting `Short`
value may be negative.\r\n */\r\n
@kotlin.internal.InlineOnly\r\n public inline fun toShort(): Short =
data.toShort()\r\n /**\r\n * Converts this [ULong] value to [Int].\r\n * If this value is less than or
equals to [Int.MAX_VALUE], the resulting `Int` value represents\r\n * the same numerical value as this
`ULong`.\r\n * The resulting `Int` value is represented by the least significant 32 bits of this `ULong`

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value.
    * Note that the resulting `Int` value may be negative.
    */
@kotlin.internal.InlineOnly
public inline fun toInt(): Int = data.toInt()
    /**
    * Converts this [ULong] value to [Long].
    * If this value is less than or equals to [Long.MAX_VALUE], the resulting `Long` value represents
    * the same numerical value as this `ULong`. Otherwise the result is negative.
    * The resulting `Long` value has the same binary representation as this `ULong` value.
    */
@kotlin.internal.InlineOnly
public inline fun toLong(): Long = data
    /**
    * Converts this [ULong] value to [UByte].
    * If this value is less than or equals to [UByte.MAX_VALUE], the resulting `UByte` value represents
    * the same numerical value as this `ULong`. The resulting `UByte` value is represented by the least significant 8 bits of
    * this `ULong` value.
    */
@kotlin.internal.InlineOnly
public inline fun toUByte(): UByte =
    data.toUByte()
    /**
    * Converts this [ULong] value to [UShort].
    * If this value is less than or equals to
    * [UShort.MAX_VALUE], the resulting `UShort` value represents
    * the same numerical value as this
    * `ULong`. The resulting `UShort` value is represented by the least significant 16 bits of this `ULong`
    * value.
    */
@kotlin.internal.InlineOnly
public inline fun toUShort(): UShort = data.toUShort()
    /**
    * Converts this [ULong] value to [UInt].
    * If this value is less than or equals to
    * [UInt.MAX_VALUE], the resulting `UInt` value represents
    * the same numerical value as this `ULong`.
    * The resulting `UInt` value is represented by the least significant 32 bits of this `ULong` value.
    */
@kotlin.internal.InlineOnly
public inline fun toUInt(): UInt = data.toUInt()
    /** Returns this value. */
@kotlin.internal.InlineOnly
public inline fun toULong(): ULong = this
    /**
    * Converts this
    * [ULong] value to [Float].
    * The resulting value is the closest `Float` to this `ULong` value.
    * In
    * case when this `ULong` value is exactly between two `Float`s,
    * the one with zero at least significant bit of
    * mantissa is selected.
    */
@kotlin.internal.InlineOnly
public inline fun toFloat(): Float =
    this.toDouble().toFloat()
    /**
    * Converts this [ULong] value to [Double].
    * The resulting
    * value is the closest `Double` to this `ULong` value.
    * In case when this `ULong` value is exactly between two
    * `Double`s,
    * the one with zero at least significant bit of mantissa is selected.
    */
@kotlin.internal.InlineOnly
public inline fun toDouble(): Double = ulongToDouble(data)
    public
    override fun toString(): String = ulongToString(data)
    /**
    * Converts this [Byte] value to
    * [ULong].
    * If this value is positive, the resulting `ULong` value represents the same numerical value as this
    * `Byte`.
    * The least significant 8 bits of the resulting `ULong` value are the same as the bits of this `Byte`
    * value,
    * whereas the most significant 56 bits are filled with the sign bit of this value.
    */
@SinceKotlin("1.3")@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun
Byte.toULong(): ULong = ULong(this.toLong())
    /**
    * Converts this [Short] value to [ULong].
    * If
    * this value is positive, the resulting `ULong` value represents the same numerical value as this `Short`.
    * The
    * least significant 16 bits of the resulting `ULong` value are the same as the bits of this `Short` value,
    * whereas
    * the most significant 48 bits are filled with the sign bit of this value.
    */
@SinceKotlin("1.3")@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun
Short.toULong(): ULong = ULong(this.toLong())
    /**
    * Converts this [Int] value to [ULong].
    * If
    * this value is positive, the resulting `ULong` value represents the same numerical value as this `Int`.
    * The
    * least significant 32 bits of the resulting `ULong` value are the same as the bits of this `Int` value,
    * whereas
    * the most significant 32 bits are filled with the sign bit of this value.
    */
@SinceKotlin("1.3")@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun
Int.toULong(): ULong = ULong(this.toLong())
    /**
    * Converts this [Long] value to [ULong].
    * If
    * this value is positive, the resulting `ULong` value represents the same numerical value as this `Long`.
    * The
    * resulting `ULong` value has the same binary representation as this `Long` value.
    */
@SinceKotlin("1.3")@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun
Long.toULong(): ULong = ULong(this)
    /**
    * Converts this [Float] value to [ULong].
    * The
    * fractional part, if any, is rounded down.
    * Returns zero if this `Float` value is negative or `NaN`,
    * [ULong.MAX_VALUE] if it's bigger than `ULong.MAX_VALUE`.
    */
@SinceKotlin("1.3")@ExperimentalUnsignedTypes
@kotlin.internal.InlineOnly
public inline fun

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Float.toULong(): ULong = doubleToULong(this.toDouble())\r\n/**\r\n * Converts this [Double] value to
[ULong].\r\n * The fractional part, if any, is rounded down.\r\n * Returns zero if this `Double` value is negative
or `NaN`, [ULong.MAX_VALUE] if it's bigger than `ULong.MAX_VALUE`.\r\n
*/\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
Double.toULong(): ULong = doubleToULong(this)\r\n", "/*\r\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin
Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\r\n */\r\n\r\n// Auto-generated file. DO NOT EDIT!\r\n\r\npackage
kotlin\r\n\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\npublic inline class
UShortArray\r\n@Suppress("\NON_PUBLIC_PRIMARY_CONSTRUCTOR_OF_INLINE_CLASS")\r\n@Publis
hedApi\r\ninternal constructor(@PublishedApi internal val storage: ShortArray) : Collection<UShort> {\r\n\r\n
/** Creates a new array of the specified [size], with all elements initialized to zero. */\r\n public constructor(size:
Int) : this(ShortArray(size))\r\n\r\n /**\r\n * Returns the array element at the given [index]. This method can be
called using the index operator.\r\n * If the [index] is out of bounds of this array, throws an
[IndexOutOfBoundsException] except in Kotlin/JS\r\n * where the behavior is unspecified.\r\n */\r\n public
operator fun get(index: Int): UShort = storage[index].toUShort()\r\n\r\n /**\r\n * Sets the element at the given
[index] to the given [value]. This method can be called using the index operator.\r\n * If the [index] is out
of bounds of this array, throws an [IndexOutOfBoundsException] except in Kotlin/JS\r\n * where the behavior is
unspecified.\r\n */\r\n public operator fun set(index: Int, value: UShort) {\r\n storage[index] =
value.toShort()\r\n }\r\n\r\n /** Returns the number of elements in the array. */\r\n public override val size: Int
get() = storage.size\r\n\r\n /** Creates an iterator over the elements of the array. */\r\n public override operator
fun iterator(): UShortIterator = Iterator(storage)\r\n\r\n private class Iterator(private val array: ShortArray) :
UShortIterator() {\r\n private var index = 0\r\n override fun hasNext() = index < array.size\r\n override
fun nextUShort() = if (index < array.size) array[index++].toUShort() else throw
NoSuchElementException(index.toString())\r\n }\r\n\r\n override fun contains(element: UShort): Boolean {\r\n
// TODO: Eliminate this check after KT-30016 gets fixed.\r\n // Currently JS BE does not generate special
bridge method for this method.\r\n if ((element as Any?) !is UShort) return false\r\n\r\n return
storage.contains(element.toShort())\r\n }\r\n\r\n override fun containsAll(elements: Collection<UShort>):
Boolean {\r\n return (elements as Collection<*>).all { it is UShort && storage.contains(it.toShort()) }\r\n
}\r\n\r\n override fun isEmpty(): Boolean = this.storage.size == 0\r\n}\r\n\r\n/**\r\n * Creates a new array of the
specified [size], where each element is calculated by calling the specified\r\n * [init] function.\r\n * The
function [init] is called for each array element sequentially starting from the first one.\r\n * It should return the value
for an array element given its index.\r\n
*/\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
UShortArray(size: Int, init: (Int) -> UShort): UShortArray {\r\n return UShortArray(ShortArray(size) { index ->
init(index).toShort()
})\r\n}\r\n\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic
inline fun ushortArrayOf(vararg elements: UShort): UShortArray = elements\r\n", "/*\r\n * Copyright 2010-2019
JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n
*/\r\n\r\n@file:kotlin.jvm.JvmMultifileClass\r\n@file:kotlin.jvm.JvmName("UArraysKt")\r\n@file:kotlin.jvm.JvmPacka
geName("kotlin.collections.unsigned")\r\n\r\npackage kotlin.collections\r\n\r\n// NOTE: THIS FILE IS AUTO-
GENERATED by the GenerateStandardLib.kt\r\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\r\n\r\nimport kotlin.random.*\r\nimport
kotlin.ranges.contains\r\nimport kotlin.ranges.reversed\r\n\r\n/**\r\n * Returns 1st *element* from the collection.\r\n
*/\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic inline operator fun
UIntArray.component1(): UInt {\r\n return get(0)\r\n}\r\n\r\n/**\r\n * Returns 1st *element* from the collection.\r\n
*/\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic inline operator fun
ULongArray.component1(): ULong {\r\n return get(0)\r\n}\r\n\r\n/**\r\n * Returns 1st *element* from the collection.\r\n
*/

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UByteArray.component1(): UByte {\n    return get(0)\n}\n\n/**\n * Returns 1st *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UShortArray.component1(): UShort {\n    return get(0)\n}\n\n/**\n * Returns 2nd *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UIntArray.component2(): UInt {\n    return get(1)\n}\n\n/**\n * Returns 2nd *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
ULongArray.component2(): ULong {\n    return get(1)\n}\n\n/**\n * Returns 2nd *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UByteArray.component2(): UByte {\n    return get(1)\n}\n\n/**\n * Returns 2nd *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UShortArray.component2(): UShort {\n    return get(1)\n}\n\n/**\n * Returns 3rd *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UIntArray.component3(): UInt {\n    return get(2)\n}\n\n/**\n * Returns 3rd *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
ULongArray.component3(): ULong {\n    return get(2)\n}\n\n/**\n * Returns 3rd *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UByteArray.component3(): UByte {\n    return get(2)\n}\n\n/**\n * Returns 3rd *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UShortArray.component3(): UShort {\n    return get(2)\n}\n\n/**\n * Returns 4th *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UIntArray.component4(): UInt {\n    return get(3)\n}\n\n/**\n * Returns 4th *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
ULongArray.component4(): ULong {\n    return get(3)\n}\n\n/**\n * Returns 4th *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UByteArray.component4(): UByte {\n    return get(3)\n}\n\n/**\n * Returns 4th *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UShortArray.component4(): UShort {\n    return get(3)\n}\n\n/**\n * Returns 5th *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UIntArray.component5(): UInt {\n    return get(4)\n}\n\n/**\n * Returns 5th *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
ULongArray.component5(): ULong {\n    return get(4)\n}\n\n/**\n * Returns 5th *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UByteArray.component5(): UByte {\n    return get(4)\n}\n\n/**\n * Returns 5th *element* from the collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UShortArray.component5(): UShort {\n    return get(4)\n}\n\n/**\n * Returns an element at the given [index] or
throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAt\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun UIntArray.elementAt(index: Int):
UInt\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is
out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun ULongArray.elementAt(index: Int):
ULong\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index]
is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun UByteArray.elementAt(index: Int):
UByte\n\n/**\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index]
is out of bounds of this array.\n * \n * @sample samples.collections.Collections.Elements.elementAt\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun UShortArray.elementAt(index: Int):

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UShort\n\n/**\n * Returns an element at the given [index] or the result of calling the [defaultValue] function if the
[index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UInt): UInt {\n    return if (index >= 0 && index <=
lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.elementAtOrElse(index: Int, defaultValue: (Int) -> ULong): ULong {\n    return if (index >= 0 &&
index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the
result of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UByte): UByte {\n    return if (index >= 0 && index
<= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or the result
of calling the [defaultValue] function if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrElse\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.elementAtOrElse(index: Int, defaultValue: (Int) -> UShort): UShort {\n    return if (index >= 0 &&
index <= lastIndex) get(index) else defaultValue(index)\n}\n\n/**\n * Returns an element at the given [index] or
`null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.elementAtOrNull(index: Int): UInt? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns an element
at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.elementAtOrNull(index: Int): ULong? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns an
element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.elementAtOrNull(index: Int): UByte? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns an
element at the given [index] or `null` if the [index] is out of bounds of this array.\n * \n * @sample
samples.collections.Collections.Elements.elementAtOrNull\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.elementAtOrNull(index: Int): UShort? {\n    return this.getOrNull(index)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.find(predicate: (UInt) -> Boolean): UInt? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns the
first element matching the given [predicate], or `null` if no such element was found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.find(predicate: (ULong) -> Boolean): ULong? {\n    return firstOrNull(predicate)\n}\n\n/**\n *
Returns the first element matching the given [predicate], or `null` if no such element was found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.find(predicate: (UByte) -> Boolean): UByte? {\n    return firstOrNull(predicate)\n}\n\n/**\n * Returns
the first element matching the given [predicate], or `null` if no such element was found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

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UShortArray.find(predicate: (UShort) -> Boolean): UShort? {\n  return firstOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUIntArray.findLast(predicate: (UInt) -> Boolean): UInt? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nULongArray.findLast(predicate: (ULong) -> Boolean): ULong? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUByteArray.findLast(predicate: (UByte) -> Boolean): UByte? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns the last element matching the given [predicate], or `null` if no such element was found.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUShortArray.findLast(predicate: (UShort) -> Boolean): UShort? {\n  return lastOrNull(predicate)\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUIntArray.first(): UInt {\n  return storage.first().toUInt()\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nULongArray.first(): ULong {\n  return storage.first().toULong()\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUByteArray.first(): UByte {\n  return storage.first().toUByte()\n}\n\n/**\n * Returns first element.\n * @throws [NoSuchElementException] if the array is empty.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUShortArray.first(): UShort {\n  return storage.first().toUShort()\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUIntArray.first(predicate: (UInt) -> Boolean): UInt {\n  for (element in this) if (predicate(element)) return element\n  throw NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nULongArray.first(predicate: (ULong) -> Boolean): ULong {\n  for (element in this) if (predicate(element)) return element\n  throw NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUByteArray.first(predicate: (UByte) -> Boolean): UByte {\n  for (element in this) if (predicate(element)) return element\n  throw NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUShortArray.first(predicate: (UShort) -> Boolean): UShort {\n  for (element in this) if (predicate(element)) return element\n  throw NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.firstOrNull(): UInt? {\n  return if (isEmpty()) null else this[0]\n}\n\n/**\n * Returns the first element, or `null` if the array is empty.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.firstOrNull(): ULong? {\n
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return if (isEmpty()) null else this[0]\n\n/**\n * Returns the first element, or `null` if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.firstOrNull(): UByte? {\n
return if (isEmpty()) null else this[0]\n\n/**\n * Returns the first element, or `null` if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.firstOrNull(): UShort? {\n
return if (isEmpty()) null else this[0]\n\n/**\n * Returns the first element matching the given [predicate], or `null`
if element was not found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.firstOrNull(predicate: (UInt) -> Boolean): UInt? {\n    for (element in this) if (predicate(element)) return
element\n    return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if element
was not found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.firstOrNull(predicate: (ULong) -> Boolean): ULong? {\n    for (element in this) if
(predicate(element)) return element\n    return null\n}\n\n/**\n * Returns the first element matching the given
[predicate], or `null` if element was not found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.firstOrNull(predicate: (UByte) -> Boolean): UByte? {\n    for (element in this) if (predicate(element))
return element\n    return null\n}\n\n/**\n * Returns the first element matching the given [predicate], or `null` if
element was not found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.firstOrNull(predicate: (UShort) -> Boolean): UShort? {\n    for (element in this) if (predicate(element))
return element\n    return null\n}\n\n/**\n * Returns an element at the given [index] or the result of calling the
[defaultValue] function if the [index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.getOrNull(index: Int, default: (Int) -> UInt): UInt? {\n    return if (index >= 0 && index <=
lastIndex) get(index) else default(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.getOrNull(index: Int, default: (Int) -> ULong): ULong? {\n    return if (index >= 0 && index <=
lastIndex) get(index) else default(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.getOrNull(index: Int, default: (Int) -> UByte): UByte? {\n    return if (index >= 0 && index <=
lastIndex) get(index) else default(index)\n}\n\n/**\n * Returns an element at the given [index] or the result of
calling the [defaultValue] function if the [index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.getOrNull(index: Int, default: (Int) -> UShort): UShort? {\n    return if (index >= 0 && index <=
lastIndex) get(index) else default(index)\n}\n\n/**\n * Returns an element at the given [index] or `null` if the
[index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UIntArray.getOrNull(index: Int): UInt? {\n    return if (index >= 0 && index <= lastIndex) get(index) else
null\n}\n\n/**\n * Returns an element at the given [index] or `null` if the [index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.getOrNull(index: Int):
ULong? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at
the given [index] or `null` if the [index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.getOrNull(index: Int): UByte?
{\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns an element at the
given [index] or `null` if the [index] is out of bounds of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.getOrNull(index: Int):
UShort? {\n    return if (index >= 0 && index <= lastIndex) get(index) else null\n}\n\n/**\n * Returns first index of
[element], or -1 if the array does not contain element.\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.indexOf(element: UInt): Int {\n    return storage.indexOf(element.toInt())\n}\n\n/**\n * Returns first
index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.indexOf(element: ULong): Int {\n    return storage.indexOf(element.toLong())\n}\n\n/**\n * Returns
first index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.indexOf(element: UByte): Int {\n    return storage.indexOf(element.toByte())\n}\n\n/**\n * Returns
first index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.indexOf(element: UShort): Int {\n    return storage.indexOf(element.toShort())\n}\n\n/**\n * Returns
index of the first element matching the given [predicate], or -1 if the array does not contain such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.indexOfFirst(predicate: (UInt) -> Boolean): Int {\n    return storage.indexOfFirst { predicate(it.toUInt())
}\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the array does not contain
such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.indexOfFirst(predicate: (ULong) -> Boolean): Int {\n    return storage.indexOfFirst {
predicate(it.toULong()) }\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the
array does not contain such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.indexOfFirst(predicate: (UByte) -> Boolean): Int {\n    return storage.indexOfFirst {
predicate(it.toUByte()) }\n}\n\n/**\n * Returns index of the first element matching the given [predicate], or -1 if the
array does not contain such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.indexOfFirst(predicate: (UShort) -> Boolean): Int {\n    return storage.indexOfFirst {
predicate(it.toUShort()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the
array does not contain such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.indexOfLast(predicate: (UInt) -> Boolean): Int {\n    return storage.indexOfLast { predicate(it.toUInt())
}\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the array does not contain
such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.indexOfLast(predicate: (ULong) -> Boolean): Int {\n    return storage.indexOfLast {
predicate(it.toULong()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the
array does not contain such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.indexOfLast(predicate: (UByte) -> Boolean): Int {\n    return storage.indexOfLast {
predicate(it.toUByte()) }\n}\n\n/**\n * Returns index of the last element matching the given [predicate], or -1 if the
array does not contain such element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.indexOfLast(predicate: (UShort) -> Boolean): Int {\n    return storage.indexOfLast {
predicate(it.toUShort()) }\n}\n\n/**\n * Returns the last element.\n * @throws [NoSuchElementException] if the
array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UIntArray.last(): UInt {\n    return storage.last().toInt()\n}\n\n/**\n * Returns the last element.\n *
@throws [NoSuchElementException] if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.last(): ULong {\n    return storage.last().toULong()\n}\n\n/**\n * Returns the last element.\n *
@throws [NoSuchElementException] if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

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ByteArray.last(): UByte { \n    return storage.last().toUByte()\n}\n\n/**\n * Returns the last element.\n * @throws [NoSuchElementException] if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.last(): UShort { \n    return storage.last().toUShort()\n}\n\n/**\n * Returns the last element matching
the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.last(predicate: (UInt) -> Boolean): UInt { \n    for (index in this.indices.reversed()) {\n        val element =
this[index]\n        if (predicate(element)) return element\n    }\n    throw NoSuchElementException("Array contains
no element matching the predicate.")\n}\n\n/**\n * Returns the last element matching the given [predicate].\n *
@throws [NoSuchElementException] if no such element is found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.last(predicate: (ULong) -> Boolean): ULong { \n    for (index in this.indices.reversed()) {\n        val
element = this[index]\n        if (predicate(element)) return element\n    }\n    throw
NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the last
element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.last(predicate: (UByte) -> Boolean): UByte { \n    for (index in this.indices.reversed()) {\n        val
element = this[index]\n        if (predicate(element)) return element\n    }\n    throw
NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns the last
element matching the given [predicate].\n * @throws [NoSuchElementException] if no such element is found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.last(predicate: (UShort) -> Boolean): UShort { \n    for (index in this.indices.reversed()) {\n        val
element = this[index]\n        if (predicate(element)) return element\n    }\n    throw
NoSuchElementException("Array contains no element matching the predicate.")\n}\n\n/**\n * Returns last index
of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.lastIndexOf(element: UInt): Int { \n    return storage.lastIndexOf(element.toInt())\n}\n\n/**\n * Returns
last index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.lastIndexOf(element: ULong): Int { \n    return storage.lastIndexOf(element.toLong())\n}\n\n/**\n *
Returns last index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.lastIndexOf(element: UByte): Int { \n    return storage.lastIndexOf(element.toByte())\n}\n\n/**\n *
Returns last index of [element], or -1 if the array does not contain element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.lastIndexOf(element: UShort): Int { \n    return storage.lastIndexOf(element.toShort())\n}\n\n/**\n *
Returns the last element, or `null` if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.lastOrNull(): UInt? { \n    return
if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.lastOrNull(): ULong? { \n    return
if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ByteArray.lastOrNull(): UByte? { \n    return
if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element, or `null` if the array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.lastOrNull(): UShort? { \n    return
if (isEmpty()) null else this[size - 1]\n}\n\n/**\n * Returns the last element matching the given [predicate], or
`null` if no such element was found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.lastOrNull(predicate: (UInt) -> Boolean): UInt? { \n    for (index in this.indices.reversed()) {\n        val

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element = this[index]\n    if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the last
element matching the given [predicate], or `null` if no such element was found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.lastOrNull(predicate: (ULong) -> Boolean): ULong? {\n    for (index in this.indices.reversed()) {\n
val element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the
last element matching the given [predicate], or `null` if no such element was found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.lastOrNull(predicate: (UByte) -> Boolean): UByte? {\n    for (index in this.indices.reversed()) {\n
val element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns the
last element matching the given [predicate], or `null` if no such element was found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.lastOrNull(predicate: (UShort) -> Boolean): UShort? {\n    for (index in this.indices.reversed()) {\n
val element = this[index]\n        if (predicate(element)) return element\n    }\n    return null\n}\n\n/**\n * Returns a
random element from this array.\n * \n * @throws NoSuchElementException if this array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.random(): UInt {\n    return random(Random)\n}\n\n/**\n * Returns a random element from this array.\n
* \n * @throws NoSuchElementException if this array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.random(): ULong {\n    return random(Random)\n}\n\n/**\n * Returns a random element from this
array.\n * \n * @throws NoSuchElementException if this array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.random(): UByte {\n    return random(Random)\n}\n\n/**\n * Returns a random element from this
array.\n * \n * @throws NoSuchElementException if this array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.random(): UShort {\n    return random(Random)\n}\n\n/**\n * Returns a random element from this
array using the specified source of randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.random(random: Random): UInt
{\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of
randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.random(random: Random):
ULong {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of
randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.random(random: Random):
UByte {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns a random element from this array using the specified source of
randomness.\n * \n * @throws NoSuchElementException if this array is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.random(random: Random):
UShort {\n    if (isEmpty())\n        throw NoSuchElementException("Array is empty.")\n    return
get(random.nextInt(size))\n}\n\n/**\n * Returns the single element, or throws an exception if the array is empty or
has more than one element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.single(): UInt {\n    return storage.single().toUInt()\n}\n\n/**\n * Returns the single element, or throws an
exception if the array is empty or has more than one element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.single(): ULong {\n    return storage.single().toULong()\n}\n\n/**\n * Returns the single element, or
throws an exception if the array is empty or has more than one element.\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.single(): UByte {\n    return storage.single().toUByte()\n}\n\n/**\n * Returns the single element, or
throws an exception if the array is empty or has more than one element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.single(): UShort {\n    return storage.single().toUShort()\n}\n\n/**\n * Returns the single element
matching the given [predicate], or throws exception if there is no or more than one matching element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.single(predicate: (UInt) -> Boolean): UInt {\n    var single: UInt? = null\n    var found = false\n    for
(element in this) {\n        if (predicate(element)) {\n            if (found) throw IllegalArgumentException("Array
contains more than one matching element.")\n            single = element\n            found = true\n        }\n    }
\n    if (!found) throw NoSuchElementException("Array contains no element matching the predicate.")\n
    @Suppress("UNCHECKED_CAST")\n    return single as UInt\n}\n\n/**\n * Returns the single element matching
the given [predicate], or throws exception if there is no or more than one matching element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.single(predicate: (ULong) -> Boolean): ULong {\n    var single: ULong? = null\n    var found = false\n
for (element in this) {\n    if (predicate(element)) {\n        if (found) throw IllegalArgumentException("Array
contains more than one matching element.")\n        single = element\n        found = true\n    }\n    }
\n    if (!found) throw NoSuchElementException("Array contains no element matching the predicate.")\n
    @Suppress("UNCHECKED_CAST")\n    return single as ULong\n}\n\n/**\n * Returns the single element
matching the given [predicate], or throws exception if there is no or more than one matching element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.single(predicate: (UByte) -> Boolean): UByte {\n    var single: UByte? = null\n    var found = false\n
for (element in this) {\n    if (predicate(element)) {\n        if (found) throw IllegalArgumentException("Array
contains more than one matching element.")\n        single = element\n        found = true\n    }\n    }
\n    if (!found) throw NoSuchElementException("Array contains no element matching the predicate.")\n
    @Suppress("UNCHECKED_CAST")\n    return single as UByte\n}\n\n/**\n * Returns the single element
matching the given [predicate], or throws exception if there is no or more than one matching element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.single(predicate: (UShort) -> Boolean): UShort {\n    var single: UShort? = null\n    var found = false\n
for (element in this) {\n    if (predicate(element)) {\n        if (found) throw IllegalArgumentException("Array
contains more than one matching element.")\n        single = element\n        found = true\n    }\n    }
\n    if (!found) throw NoSuchElementException("Array contains no element matching the predicate.")\n
    @Suppress("UNCHECKED_CAST")\n    return single as UShort\n}\n\n/**\n * Returns single element, or `null` if
the array is empty or has more than one element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.singleOrNull(): UInt? {\n
return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single element, or `null` if the array is empty or has more
than one element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.singleOrNull(): ULong? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single
element, or `null` if the array is empty or has more than one element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray.singleOrNull(): UByte? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns single
element, or `null` if the array is empty or has more than one element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.singleOrNull(): UShort? {\n    return if (size == 1) this[0] else null\n}\n\n/**\n * Returns the single
element matching the given [predicate], or `null` if element was not found or more than one element was found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.singleOrNull(predicate: (UInt) -> Boolean): UInt? {\n    var single: UInt? = null\n    var found = false\n
for (element in this) {\n    if (predicate(element)) {\n        if (found) return null\n        single = element\n
        found = true\n    }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns the single element

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matching the given [predicate], or `null` if element was not found or more than one element was found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.singleOrNull(predicate: (ULong) -> Boolean): ULong? {\n    var single: ULong? = null\n    var found
= false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single =
element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UByteArray.singleOrNull(predicate: (UByte) -> Boolean): UByte? {\n    var single: UByte? = null\n    var found
= false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single =
element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns the
single element matching the given [predicate], or `null` if element was not found or more than one element was
found.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UShortArray.singleOrNull(predicate: (UShort) -> Boolean): UShort? {\n    var single: UShort? = null\n    var
found = false\n    for (element in this) {\n        if (predicate(element)) {\n            if (found) return null\n            single
= element\n            found = true\n        }\n    }\n    if (!found) return null\n    return single\n}\n\n/**\n * Returns a list
containing all elements except first [n] elements.\n
* \n * @throws IllegalArgumentException if [n] is negative.\n
* \n * @sample samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.drop(n: Int): List<UInt> {\n
require(n >= 0) { "\"Requested element count $n is less than zero.\" }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n
* \n * @throws
IllegalArgumentException if [n] is negative.\n
* \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.drop(n: Int): List<ULong> {\n
require(n >= 0) { "\"Requested element count $n is less than zero.\" }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n
* \n * @throws
IllegalArgumentException if [n] is negative.\n
* \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.drop(n: Int): List<UByte> {\n
require(n >= 0) { "\"Requested element count $n is less than zero.\" }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except first [n] elements.\n
* \n * @throws
IllegalArgumentException if [n] is negative.\n
* \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.drop(n: Int): List<UShort> {\n
require(n >= 0) { "\"Requested element count $n is less than zero.\" }\n    return takeLast((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n
* \n * @throws
IllegalArgumentException if [n] is negative.\n
* \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.dropLast(n: Int): List<UInt> {\n
require(n >= 0) { "\"Requested element count $n is less than zero.\" }\n    return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n
* \n * @throws
IllegalArgumentException if [n] is negative.\n
* \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.dropLast(n: Int):
List<ULong> {\n    require(n >= 0) { "\"Requested element count $n is less than zero.\" }\n    return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n
* \n * @throws
IllegalArgumentException if [n] is negative.\n
* \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.dropLast(n: Int): List<UByte>

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{\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last [n] elements.\n * \n * @throws
IllegalArgumentException if [n] is negative.\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.dropLast(n: Int):
List<UShort> {\n  require(n >= 0) { \"Requested element count $n is less than zero.\" }\n  return take((size -
n).coerceAtLeast(0))\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.dropLastWhile(predicate: (UInt) -> Boolean): List<UInt> {\n  for (index in lastIndex downTo 0) {\n
if (!predicate(this[index])) {\n      return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.dropLastWhile(predicate: (ULong) -> Boolean): List<ULong> {\n  for (index in lastIndex downTo 0)
{\n    if (!predicate(this[index])) {\n      return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.dropLastWhile(predicate: (UByte) -> Boolean): List<UByte> {\n  for (index in lastIndex downTo 0)
{\n    if (!predicate(this[index])) {\n      return take(index + 1)\n    }\n  }\n  return emptyList()\n}\n\n/**\n * Returns a list containing all elements except last elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.dropLastWhile(predicate: (UShort) -> Boolean): List<UShort> {\n  for (index in lastIndex downTo
0) {\n    if (!predicate(this[index])) {\n      return take(index + 1)\n    }\n  }\n  return
emptyList()\n}\n\n/**\n * Returns a list containing all elements except first elements that satisfy the given
[predicate].\n * \n * @sample samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.dropWhile(predicate: (UInt) -> Boolean): List<UInt> {\n  var yielding = false\n  val list =
ArrayList<UInt>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item)) {\n
      list.add(item)\n      yielding = true\n    }\n  return list\n}\n\n/**\n * Returns a list containing all
elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.dropWhile(predicate: (ULong) -> Boolean): List<ULong> {\n  var yielding = false\n  val list =
ArrayList<ULong>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item))
{\n      list.add(item)\n      yielding = true\n    }\n  return list\n}\n\n/**\n * Returns a list containing all
elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.dropWhile(predicate: (UByte) -> Boolean): List<UByte> {\n  var yielding = false\n  val list =
ArrayList<UByte>()\n  for (item in this)\n    if (yielding)\n      list.add(item)\n    else if (!predicate(item))
{\n      list.add(item)\n      yielding = true\n    }\n  return list\n}\n\n/**\n * Returns a list containing all
elements except first elements that satisfy the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.drop\n
*\n@SinceKotlin(\"1.3\")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.dropWhile(predicate: (UShort) -> Boolean): List<UShort> {\n  var yielding = false\n  val list =

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element itself\n * and returns the result of predicate evaluation on the element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UByte>> UByteArray.filterIndexedTo(destination: C, predicate: (index: Int, UByte) ->
Boolean): C {\n  forEachIndexed { index, element ->\n    if (predicate(index, element))
destination.add(element)\n  }\n  return destination\n}\n\n/**\n * Appends all elements matching the given
[predicate] to the given [destination].\n * @param [predicate] function that takes the index of an element and the
element itself\n * and returns the result of predicate evaluation on the element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UShort>> UShortArray.filterIndexedTo(destination: C, predicate: (index: Int, UShort) ->
Boolean): C {\n  forEachIndexed { index, element ->\n    if (predicate(index, element))
destination.add(element)\n  }\n  return destination\n}\n\n/**\n * Returns a list containing all elements not
matching the given [predicate].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.filterNot(predicate: (UInt) -> Boolean): List<UInt> {\n  return filterNotTo(ArrayList<UInt>(),
predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.filterNot(predicate: (ULong) -> Boolean): List<ULong> {\n  return filterNotTo(ArrayList<ULong>(),
predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.filterNot(predicate: (UByte) -> Boolean): List<UByte> {\n  return filterNotTo(ArrayList<UByte>(),
predicate)\n}\n\n/**\n * Returns a list containing all elements not matching the given [predicate].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.filterNot(predicate: (UShort) -> Boolean): List<UShort> {\n  return
filterNotTo(ArrayList<UShort>(), predicate)\n}\n\n/**\n * Appends all elements not matching the given [predicate]
to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UInt>> UIntArray.filterNotTo(destination: C, predicate: (UInt) -> Boolean): C {\n  for
(element in this) if (!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all
elements not matching the given [predicate] to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in ULong>> ULongArray.filterNotTo(destination: C, predicate: (ULong) -> Boolean): C {\n  for
(element in this) if (!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends
all elements not matching the given [predicate] to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UByte>> UByteArray.filterNotTo(destination: C, predicate: (UByte) -> Boolean): C {\n  for
(element in this) if (!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all
elements not matching the given [predicate] to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UShort>> UShortArray.filterNotTo(destination: C, predicate: (UShort) -> Boolean): C {\n  for
(element in this) if (!predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends
all elements matching the given [predicate] to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in UInt>> UIntArray.filterTo(destination: C, predicate: (UInt) -> Boolean): C {\n  for (element
in this) if (predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all elements
matching the given [predicate] to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C :
MutableCollection<in ULong>> ULongArray.filterTo(destination: C, predicate: (ULong) -> Boolean): C {\n  for
(element in this) if (predicate(element)) destination.add(element)\n  return destination\n}\n\n/**\n * Appends all
elements matching the given [predicate] to the given [destination].\n

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elements matching the given [predicate] to the given [destination].\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UByte>> UByteArray.filterTo(destination: C, predicate: (UByte) -> Boolean): C {\n    for (element in this) if (predicate(element)) destination.add(element)\n    return destination\n}\n\n/**\n * Appends all elements matching the given [predicate] to the given [destination].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <C : MutableCollection<in UShort>> UShortArray.filterTo(destination: C, predicate: (UShort) -> Boolean): C {\n    for (element in this) if (predicate(element)) destination.add(element)\n    return destination\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n
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```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.slice(indices: IntRange): List<UInt> {\n    if (indices.isEmpty()) return listOf()\n    return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.slice(indices: IntRange): List<ULong> {\n    if (indices.isEmpty()) return listOf()\n    return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.slice(indices: IntRange): List<UByte> {\n    if (indices.isEmpty()) return listOf()\n    return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at indices in the specified [indices] range.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.slice(indices: IntRange): List<UShort> {\n    if (indices.isEmpty()) return listOf()\n    return copyOfRange(indices.start, indices.endInclusive + 1).asList()\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.slice(indices: Iterable<Int>): List<UInt> {\n    val size = indices.collectionSizeOrDefault(10)\n    if (size == 0) return emptyList()\n    val list = ArrayList<UInt>(size)\n    for (index in indices) {\n        list.add(get(index))\n    }\n    return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.slice(indices: Iterable<Int>): List<ULong> {\n    val size = indices.collectionSizeOrDefault(10)\n    if (size == 0) return emptyList()\n    val list = ArrayList<ULong>(size)\n    for (index in indices) {\n        list.add(get(index))\n    }\n    return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n
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```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.slice(indices: Iterable<Int>): List<UByte> {\n    val size = indices.collectionSizeOrDefault(10)\n    if (size == 0) return emptyList()\n    val list = ArrayList<UByte>(size)\n    for (index in indices) {\n        list.add(get(index))\n    }\n    return list\n}\n\n/**\n * Returns a list containing elements at specified [indices].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.slice(indices: Iterable<Int>): List<UShort> {\n    val size = indices.collectionSizeOrDefault(10)\n    if (size == 0) return emptyList()\n    val list = ArrayList<UShort>(size)\n    for (index in indices) {\n        list.add(get(index))\n    }\n    return list\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sliceArray(indices: Collection<Int>): UIntArray {\n    return UIntArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n
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```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sliceArray(indices: Collection<Int>): ULongArray {\n    return ULongArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sliceArray(indices: Collection<Int>): UByteArray {\n    return UByteArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements of this array at specified [indices].\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.sliceArray(indices: Collection<Int>): UShortArray {\n    return UShortArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an
```

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array containing elements at indices in the specified [indices] range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sliceArray(indices: IntRange):
UIntArray {\n    return UIntArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at
indices in the specified [indices] range.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.sliceArray(indices: IntRange): ULongArray {\n    return
ULongArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in the
specified [indices] range.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UByteArray.sliceArray(indices: IntRange): UByteArray {\n    return
UByteArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns an array containing elements at indices in the
specified [indices] range.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.sliceArray(indices: IntRange): UShortArray {\n    return
UShortArray(storage.sliceArray(indices))\n}\n\n/**\n * Returns a list containing first [n] elements.\n *\n * \n *
@throws IllegalArgumentException if [n] is negative.\n *\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.take(n: Int): List<UInt> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<UInt>(n)\n    for
(item in this) {\n        if (count++ == n)\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n *\n * \n * @throws IllegalArgumentException if [n] is negative.\n *\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.take(n: Int): List<ULong> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<ULong>(n)\n    for
(item in this) {\n        if (count++ == n)\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n *\n * \n * @throws IllegalArgumentException if [n] is negative.\n *\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.take(n: Int): List<UByte> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<UByte>(n)\n    for
(item in this) {\n        if (count++ == n)\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns
a list containing first [n] elements.\n *\n * \n * @throws IllegalArgumentException if [n] is negative.\n *\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.take(n: Int): List<UShort> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    if (n >=
size) return toList()\n    if (n == 1) return listOf(this[0])\n    var count = 0\n    val list = ArrayList<UShort>(n)\n    for
(item in this) {\n        if (count++ == n)\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns
a list containing last [n] elements.\n *\n * \n * @throws IllegalArgumentException if [n] is negative.\n *\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.takeLast(n: Int): List<UInt> {\n
require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val size =
size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list = ArrayList<UInt>(n)\n
for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last
[n] elements.\n *\n * \n * @throws IllegalArgumentException if [n] is negative.\n *\n * \n * @sample
samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.takeLast(n: Int): List<ULong>
{\n    require(n >= 0) { \"Requested element count $n is less than zero.\" }\n    if (n == 0) return emptyList()\n    val
size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list =
ArrayList<ULong>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n *

```

Returns a list containing last [n] elements.\n \* \n \* @throws IllegalArgumentException if [n] is negative.\n \* \n \* @sample samples.collections.Collections.Transformations.take\n

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.takeLast(n: Int): List<UByte>
{\n    require(n >= 0) { "Requested element count $n is less than zero." }\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list =
ArrayList<UByte>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last [n] elements.\n * \n * @throws IllegalArgumentException if [n] is negative.\n * \n * @sample samples.collections.Collections.Transformations.take\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.takeLast(n: Int): List<UShort>
{\n    require(n >= 0) { "Requested element count $n is less than zero." }\n    if (n == 0) return emptyList()\n    val size = size\n    if (n >= size) return toList()\n    if (n == 1) return listOf(this[size - 1])\n    val list =
ArrayList<UShort>(n)\n    for (index in size - n until size)\n        list.add(this[index])\n    return list\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.takeLastWhile(predicate: (UInt) -> Boolean): List<UInt> {\n    for (index in lastIndex downTo 0) {\n
if (!predicate(this[index])) {\n        return drop(index + 1)\n    }\n    }\n    return toList()\n}\n\n/**\n * Returns a
list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.takeLastWhile(predicate: (ULong) -> Boolean): List<ULong> {\n    for (index in lastIndex downTo 0)
{\n    if (!predicate(this[index])) {\n        return drop(index + 1)\n    }\n    }\n    return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.takeLastWhile(predicate: (UByte) -> Boolean): List<UByte> {\n    for (index in lastIndex downTo 0)
{\n    if (!predicate(this[index])) {\n        return drop(index + 1)\n    }\n    }\n    return toList()\n}\n\n/**\n * Returns a list containing last elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.takeLastWhile(predicate: (UShort) -> Boolean): List<UShort> {\n    for (index in lastIndex downTo 0)
{\n    if (!predicate(this[index])) {\n        return drop(index + 1)\n    }\n    }\n    return toList()\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.takeWhile(predicate: (UInt) -> Boolean): List<UInt> {\n    val list = ArrayList<UInt>()\n    for (item in
this) {\n    if (!predicate(item))\n        break\n    list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list
containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.takeWhile(predicate: (ULong) -> Boolean): List<ULong> {\n    val list = ArrayList<ULong>()\n    for
(item in this) {\n    if (!predicate(item))\n        break\n    list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
samples.collections.Collections.Transformations.take\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.takeWhile(predicate: (UByte) -> Boolean): List<UByte> {\n    val list = ArrayList<UByte>()\n    for
(item in this) {\n    if (!predicate(item))\n        break\n    list.add(item)\n    }\n    return list\n}\n\n/**\n * Returns a list containing first elements satisfying the given [predicate].\n * \n * @sample
```

```

samples.collections.Collections.Transformations.take\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.takeWhile(predicate: (UShort) -> Boolean): List<UShort> {\n    val list = ArrayList<UShort>()\n    for
(item in this) {\n        if (!predicate(item))\n            break\n        list.add(item)\n    }\n    return list\n}\n\n/>\n *
Reverses elements in the array in-place.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.reverse(): Unit {\n    storage.reverse()\n}\n\n/>\n * Reverses elements in the array in-place.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reverse(): Unit {\n    storage.reverse()\n}\n\n/>\n * Reverses elements in the array in-place.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.reverse(): Unit {\n    storage.reverse()\n}\n\n/>\n * Reverses elements in the array in-place.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.reverse(): Unit {\n    storage.reverse()\n}\n\n/>\n * Returns a list with elements in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.reversed(): List<UInt> {\n    if
(isEmpty()) return emptyList()\n    val list = toMutableList()\n    list.reverse()\n    return list\n}\n\n/>\n * Returns a
list with elements in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.reversed(): List<ULong> {\n    if (isEmpty()) return emptyList()\n    val list = toMutableList()\n
list.reverse()\n    return list\n}\n\n/>\n * Returns a list with elements in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.reversed(): List<UByte> {\n
if (isEmpty()) return emptyList()\n    val list = toMutableList()\n    list.reverse()\n    return list\n}\n\n/>\n * Returns
a list with elements in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.reversed(): List<UShort> {\n    if (isEmpty()) return emptyList()\n    val list = toMutableList()\n
list.reverse()\n    return list\n}\n\n/>\n * Returns an array with elements of this array in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.reversedArray(): UIntArray {\n    return UIntArray(storage.reversedArray())\n}\n\n/>\n * Returns an
array with elements of this array in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reversedArray(): ULongArray {\n    return ULongArray(storage.reversedArray())\n}\n\n/>\n *
Returns an array with elements of this array in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.reversedArray(): UByteArray {\n    return UByteArray(storage.reversedArray())\n}\n\n/>\n * Returns
an array with elements of this array in reversed order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.reversedArray(): UShortArray {\n    return UShortArray(storage.reversedArray())\n}\n\n/>\n * Sorts
elements in the array in-place descending according to their natural sort order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sortDescending(): Unit {\n    if
(size > 1) {\n        sort()\n        reverse()\n    }\n}\n\n/>\n * Sorts elements in the array in-place descending
according to their natural sort order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.sortDescending(): Unit {\n    if (size > 1) {\n        sort()\n        reverse()\n    }\n}\n\n/>\n * Sorts
elements in the array in-place descending according to their natural sort order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sortDescending(): Unit {\n    if
(size > 1) {\n        sort()\n        reverse()\n    }\n}\n\n/>\n * Sorts elements in the array in-place descending
according to their natural sort order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
UShortArray.sortDescending(): Unit {\n    if (size > 1) {\n        sort()\n        reverse()\n    }\n}\n\n/>\n * Returns a
list of all elements sorted according to their natural sort order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.sorted(): List<UInt> {\n    return
copyOf().apply { sort() }.asList()\n}\n\n/>\n * Returns a list of all elements sorted according to their natural sort
order.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.sorted():

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array.\n *^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.asIntArray(): IntArray {\n    return storage\n}\n\n/**\n * Returns a [List] that wraps the original array.\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun UIntArray.asList():
List<UInt>\n\n/**\n * Returns a [List] that wraps the original array.\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun ULongArray.asList():
List<ULong>\n\n/**\n * Returns a [List] that wraps the original array.\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun UByteArray.asList():
List<UByte>\n\n/**\n * Returns a [List] that wraps the original array.\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic expect fun UShortArray.asList():
List<UShort>\n\n/**\n * Returns an array of type [LongArray], which is a view of this array where each element is
a signed reinterpretation\n * of the corresponding element of this array.\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.asLongArray(): LongArray {\n    return storage\n}\n\n/**\n * Returns an array of type [ShortArray],
which is a view of this array where each element is a signed reinterpretation\n * of the corresponding element of this
array.\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.asShortArray(): ShortArray {\n    return storage\n}\n\n/**\n * Returns an array of type [UByteArray],
which is a view of this array where each element is an unsigned reinterpretation\n * of the corresponding element of
this array.\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun ByteArray.asUByteArray(): UByteArray {\n    return UByteArray(this)\n}\n\n/**\n * Returns an array of type
[UIntArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the
corresponding element of this array.\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.asUIntArray(): UIntArray {\n    return UIntArray(this)\n}\n\n/**\n * Returns an array of type
[ULongArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the
corresponding element of this array.\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.asULongArray(): ULongArray {\n    return ULongArray(this)\n}\n\n/**\n * Returns an array of type
[UShortArray], which is a view of this array where each element is an unsigned reinterpretation\n * of the
corresponding element of this array.\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.asUShortArray(): UShortArray {\n    return UShortArray(this)\n}\n\n/**\n * Returns `true` if the two
specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the
same order.\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun
UIntArray.contentEquals(other: UIntArray): Boolean {\n    return storage.contentEquals(other.storage)\n}\n\n/**\n *
Returns `true` if the two specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of
the same elements in the same order.\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun
ULongArray.contentEquals(other: ULongArray): Boolean {\n    return
storage.contentEquals(other.storage)\n}\n\n/**\n * Returns `true` if the two specified arrays are *structurally* equal
to one another,\n * i.e. contain the same number of the same elements in the same order.\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UByteArray.contentEquals(other:
UByteArray): Boolean {\n    return storage.contentEquals(other.storage)\n}\n\n/**\n * Returns `true` if the two
specified arrays are *structurally* equal to one another,\n * i.e. contain the same number of the same elements in the
same order.\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun
UShortArray.contentEquals(other: UShortArray): Boolean {\n    return
storage.contentEquals(other.storage)\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is
[List].\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.contentHashCode(): Int
{\n    return storage.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it
is [List].\n
*^@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun

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ULongArray.contentHashCode(): Int {\n  return storage.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.contentHashCode(): Int {\n  return storage.contentHashCode()\n}\n\n/**\n * Returns a hash code based on the contents of this array as if it is [List].\n\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.contentHashCode(): Int {\n  return storage.contentHashCode()\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.contentToString(): String {\n  return joinToString(", ", "[", "]")\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.contentToString(): String {\n  return joinToString(", ", "[", "]")\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.contentToString(): String {\n  return joinToString(", ", "[", "]")\n}\n\n/**\n * Returns a string representation of the contents of the specified array as if it is [List].\n\n * \n * @sample samples.collections.Arrays.ContentOperations.contentToString\n\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.contentToString(): String {\n  return joinToString(", ", "[", "]")\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n\n * \n * @param destination the array to copy to.\n\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n\n * or when that index is out of the [destination] array indices range.\n\n * \n * @return the [destination] array.\n\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun UIntArray.copyInto(destination: UIntArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): UIntArray {\n  storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n  return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n\n * \n * @param destination the array to copy to.\n\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of range of this array indices or when `startIndex > endIndex`.\n\n * @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset],\n\n * or when that index is out of the [destination] array indices range.\n\n * \n * @return the [destination] array.\n\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun ULongArray.copyInto(destination: ULongArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size): ULongArray {\n  storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n  return destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array.\n\n * \n * It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the destination range.\n\n * \n * @param destination the array to copy to.\n\n * @param destinationOffset the position in the [destination] array to copy to, 0 by default.\n\n * @param startIndex the beginning (inclusive) of the subrange to copy, 0 by default.\n\n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default.\n\n * \n * @throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of

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range of this array indices or when `startIndex > endIndex`. \n \* @throws IndexOutOfBoundsException when the subrange doesn't fit into the [destination] array starting at the specified [destinationOffset], \n \* or when that index is out of the [destination] array indices range. \n \* \n \* @return the [destination] array. \n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.copyInto(destination: UByteArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int = size):
UByteArray {\n    storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n    return
destination\n}\n\n/**\n * Copies this array or its subrange into the [destination] array and returns that array. \n * \n *
It's allowed to pass the same array in the [destination] and even specify the subrange so that it overlaps with the
destination range. \n * \n * @param destination the array to copy to. \n * @param destinationOffset the position in the
[destination] array to copy to, 0 by default. \n * @param startIndex the beginning (inclusive) of the subrange to copy,
0 by default. \n * @param endIndex the end (exclusive) of the subrange to copy, size of this array by default. \n * \n *
@throws IndexOutOfBoundsException or [IllegalArgumentException] when [startIndex] or [endIndex] is out of
range of this array indices or when `startIndex > endIndex`. \n * @throws IndexOutOfBoundsException when the
subrange doesn't fit into the [destination] array starting at the specified [destinationOffset], \n * or when that index is
out of the [destination] array indices range. \n * \n * @return the [destination] array. \n
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```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.copyInto(destination: UShortArray, destinationOffset: Int = 0, startIndex: Int = 0, endIndex: Int =
size): UShortArray {\n    storage.copyInto(destination.storage, destinationOffset, startIndex, endIndex)\n    return
destination\n}\n\n/**\n * Returns new array which is a copy of the original array. \n * \n * @sample
samples.collections.Arrays.CopyOfOperations.copyOfOf\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.copyOfOf(): UIntArray {\n    return UIntArray(storage.copyOfOf())\n}\n\n/**\n * Returns new array which is
a copy of the original array. \n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.copyOfOf(): ULongArray {\n    return ULongArray(storage.copyOfOf())\n}\n\n/**\n * Returns new array
which is a copy of the original array. \n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.copyOfOf(): UByteArray {\n    return UByteArray(storage.copyOfOf())\n}\n\n/**\n * Returns new array
which is a copy of the original array. \n * \n * @sample samples.collections.Arrays.CopyOfOperations.copyOfOf\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.copyOfOf(): UShortArray {\n    return UShortArray(storage.copyOfOf())\n}\n\n/**\n * Returns new array
which is a copy of the original array, resized to the given [newSize]. \n * The copy is either truncated or padded at
the end with zero values if necessary. \n * \n * - If [newSize] is less than the size of the original array, the copy array
is truncated to the [newSize]. \n * - If [newSize] is greater than the size of the original array, the extra elements in the
copy array are filled with zero values. \n
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```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.copyOfOf(newSize: Int): UIntArray {\n    return UIntArray(storage.copyOfOf(newSize))\n}\n\n/**\n *
Returns new array which is a copy of the original array, resized to the given [newSize]. \n * The copy is either
truncated or padded at the end with zero values if necessary. \n * \n * - If [newSize] is less than the size of the
original array, the copy array is truncated to the [newSize]. \n * - If [newSize] is greater than the size of the original
array, the extra elements in the copy array are filled with zero values. \n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.copyOfOf(newSize: Int): ULongArray {\n    return ULongArray(storage.copyOfOf(newSize))\n}\n\n/**\n *
Returns new array which is a copy of the original array, resized to the given [newSize]. \n * The copy is either
truncated or padded at the end with zero values if necessary. \n * \n * - If [newSize] is less than the size of the
original array, the copy array is truncated to the [newSize]. \n * - If [newSize] is greater than the size of the original
array, the extra elements in the copy array are filled with zero values. \n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
```

UByteArray.copyOf(newSize: Int): UByteArray { \n return UByteArray(storage.copyOf(newSize))\n}\n\n/\*\*\n \* Returns new array which is a copy of the original array, resized to the given [newSize].\n \* The copy is either truncated or padded at the end with zero values if necessary.\n \* - If [newSize] is less than the size of the original array, the copy array is truncated to the [newSize].\n \* - If [newSize] is greater than the size of the original array, the extra elements in the copy array are filled with zero values.\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
  
```

UShortArray.copyOf(newSize: Int): UShortArray { \n return UShortArray(storage.copyOf(newSize))\n}\n\n/\*\*\n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive), must be in `0..array.size`\n \* @param toIndex the end of the range (exclusive), must be in `fromIndex..array.size`\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
  
```

UIntArray.copyOfRange(fromIndex: Int, toIndex: Int): UIntArray { \n return
 UIntArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/\*\*\n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive), must be in `0..array.size`\n \* @param toIndex the end of the range (exclusive), must be in `fromIndex..array.size`\n

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
  
```

ULongArray.copyOfRange(fromIndex: Int, toIndex: Int): ULongArray { \n return
 ULongArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/\*\*\n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive), must be in `0..array.size`\n \* @param toIndex the end of the range (exclusive), must be in `fromIndex..array.size`\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
  
```

UByteArray.copyOfRange(fromIndex: Int, toIndex: Int): UByteArray { \n return
 UByteArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/\*\*\n \* Returns a new array which is a copy of the specified range of the original array.\n \* \n \* @param fromIndex the start of the range (inclusive), must be in `0..array.size`\n \* @param toIndex the end of the range (exclusive), must be in `fromIndex..array.size`\n

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
  
```

UShortArray.copyOfRange(fromIndex: Int, toIndex: Int): UShortArray { \n return
 UShortArray(storage.copyOfRange(fromIndex, toIndex))\n}\n\n/\*\*\n \* Fills this array or its subrange with the specified [element] value.\n \* \n \* @param fromIndex the start of the range (inclusive), 0 by default.\n \* @param toIndex the end of the range (exclusive), size of this array by default.\n \* \n \* @throws
 IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.fill(element: UInt, fromIndex:
  
```

Int = 0, toIndex: Int = size): Unit { \n storage.fill(element.toInt(), fromIndex, toIndex)\n}\n\n/\*\*\n \* Fills this array or its subrange with the specified [element] value.\n \* \n \* @param fromIndex the start of the range (inclusive), 0 by default.\n \* @param toIndex the end of the range (exclusive), size of this array by default.\n \* \n \* @throws
 IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.fill(element: ULong,
  
```

fromIndex: Int = 0, toIndex: Int = size): Unit { \n storage.fill(element.toLong(), fromIndex, toIndex)\n}\n\n/\*\*\n \* Fills this array or its subrange with the specified [element] value.\n \* \n \* @param fromIndex the start of the range (inclusive), 0 by default.\n \* @param toIndex the end of the range (exclusive), size of this array by default.\n \* \n \* @throws
 IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.fill(element: UByte,
  
```

fromIndex: Int = 0, toIndex: Int = size): Unit { \n storage.fill(element.toByte(), fromIndex, toIndex)\n}\n\n/\*\*\n \* Fills this array or its subrange with the specified [element] value.\n \* \n \* @param fromIndex the start of the range (inclusive), 0 by default.\n \* @param toIndex the end of the range (exclusive), size of this array by default.\n \* \n \*

@throws IndexOutOfBoundsException if [fromIndex] is less than zero or [toIndex] is greater than the size of this array.\n \* @throws IllegalArgumentException if [fromIndex] is greater than [toIndex].\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.fill(element: UShort,
fromIndex: Int = 0, toIndex: Int = size): Unit {\n    storage.fill(element.toShort(), fromIndex, toIndex)\n}\n\n/**\n * Returns the range of valid indices for the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UIntArray.indices: IntRange\n    get()
= storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val ULongArray.indices: IntRange\n    get()
= storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UByteArray.indices: IntRange\n    get()
= storage.indices\n\n/**\n * Returns the range of valid indices for the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UShortArray.indices: IntRange\n    get()
= storage.indices\n\n/**\n * Returns the last valid index for the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UIntArray.lastIndex: Int\n    get()
= storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val ULongArray.lastIndex: Int\n    get()
= storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UByteArray.lastIndex: Int\n    get()
= storage.lastIndex\n\n/**\n * Returns the last valid index for the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic inline val UShortArray.lastIndex: Int\n    get()
= storage.lastIndex\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
operator fun UIntArray.plus(element: UInt): UIntArray {\n    return UIntArray(storage +
element.toInt())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
operator fun ULongArray.plus(element: ULong): ULongArray {\n    return ULongArray(storage +
element.toLong())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
operator fun UByteArray.plus(element: UByte): UByteArray {\n    return UByteArray(storage +
element.toByte())\n}\n\n/**\n * Returns an array containing all elements of the original array and then the given
[element].\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
operator fun UShortArray.plus(element: UShort): UShortArray {\n    return UShortArray(storage +
element.toShort())\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements
of the given [elements] collection.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic operator
fun UIntArray.plus(elements: Collection<UInt>): UIntArray {\n    var index = size\n    val result =
storage.copyOf(size + elements.size)\n    for (element in elements) result[index++] = element.toInt()\n    return
UIntArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements
of the given [elements] collection.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic operator
fun ULongArray.plus(elements: Collection<ULong>): ULongArray {\n    var index = size\n    val result =
storage.copyOf(size + elements.size)\n    for (element in elements) result[index++] = element.toLong()\n    return
ULongArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all
elements of the given [elements] collection.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
operator fun UByteArray.plus(elements: Collection<UByte>): UByteArray {\n    var index = size\n    val result =
storage.copyOf(size + elements.size)\n    for (element in elements) result[index++] = element.toByte()\n    return
UByteArray(result)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements
of the given [elements] collection.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic operator
fun UShortArray.plus(elements: Collection<UShort>): UShortArray {\n    var index = size\n    val result =
storage.copyOf(size + elements.size)\n    for (element in elements) result[index++] = element.toShort()\n    return
UShortArray(result)\n}\n

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UShortArray(result)\n}\n\n/\*\*\n \* Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UIntArray.plus(elements: UIntArray): UIntArray {\n    return UIntArray(storage + elements.storage)\n}\n\n/**\n *
Returns an array containing all elements of the original array and then all elements of the given [elements] array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
ULongArray.plus(elements: ULongArray): ULongArray {\n    return ULongArray(storage +
elements.storage)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements
of the given [elements] array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UByteArray.plus(elements: UByteArray): UByteArray {\n    return UByteArray(storage +
elements.storage)\n}\n\n/**\n * Returns an array containing all elements of the original array and then all elements
of the given [elements] array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UShortArray.plus(elements: UShortArray): UShortArray {\n    return UShortArray(storage +
elements.storage)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun UIntArray.sort(): Unit {\n    if (size > 1) sortArray(this)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun ULongArray.sort(): Unit {\n    if (size > 1) sortArray(this)\n}\n\n/**\n * Sorts the array in-place.\n * \n *
@sample samples.collections.Arrays.Sorting.sortArray\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.sort(): Unit {\n    if (size > 1)
sortArray(this)\n}\n\n/**\n * Sorts the array in-place.\n * \n * @sample
samples.collections.Arrays.Sorting.sortArray\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
fun UShortArray.sort(): Unit {\n    if (size > 1) sortArray(this)\n}\n\n/**\n * Returns an array of type [ByteArray],
which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding element of this
array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.toByteArray(): ByteArray {\n    return storage.copyOf()\n}\n\n/**\n * Returns an array of type
[IntArray], which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding
element of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.toIntArray(): IntArray {\n    return storage.copyOf()\n}\n\n/**\n * Returns an array of type [LongArray],
which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding element of this
array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.toLongArray(): LongArray {\n    return storage.copyOf()\n}\n\n/**\n * Returns an array of type
[ShortArray], which is a copy of this array where each element is a signed reinterpretation\n * of the corresponding
element of this array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.toShortArray(): ShortArray {\n    return storage.copyOf()\n}\n\n/**\n * Returns a *typed* object array
containing all of the elements of this primitive array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.toTypedArray(): Array<UInt>
{\n    return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array containing all of the
elements of this primitive array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
ULongArray.toTypedArray(): Array<ULong> {\n    return Array(size) { index -> this[index] }\n}\n\n/**\n *
Returns a *typed* object array containing all of the elements of this primitive array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.toTypedArray():
Array<UByte> {\n    return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns a *typed* object array
containing all of the elements of this primitive array.\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.toArray():
Array<UShort> {\n    return Array(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of UByte containing
all of the elements of this generic array.\n *\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Array<out UByte>.toByteArray(): UByteArray {\n    return UByteArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [UByteArray], which is a copy of this array where each element is an unsigned
reinterpretation\n * of the corresponding element of this array.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ByteArray.toByteArray(): UByteArray {\n    return UByteArray(this.copyOf())\n}\n\n/**\n * Returns an array of
UInt containing all of the elements of this generic array.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Array<out UInt>.toUIntArray(): UIntArray
{\n    return UIntArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type [UIntArray], which is a
copy of this array where each element is an unsigned reinterpretation\n * of the corresponding element of this
array.\n *\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
IntArray.toUIntArray(): UIntArray {\n    return UIntArray(this.copyOf())\n}\n\n/**\n * Returns an array of ULong
containing all of the elements of this generic array.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Array<out ULong>.toULongArray():
ULongArray {\n    return ULongArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type
[ULongArray], which is a copy of this array where each element is an unsigned reinterpretation\n * of the
corresponding element of this array.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
LongArray.toULongArray(): ULongArray {\n    return ULongArray(this.copyOf())\n}\n\n/**\n * Returns an array
of UShort containing all of the elements of this generic array.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Array<out UShort>.toUShortArray():
UShortArray {\n    return UShortArray(size) { index -> this[index] }\n}\n\n/**\n * Returns an array of type
[UShortArray], which is a copy of this array where each element is an unsigned reinterpretation\n * of the
corresponding element of this array.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ShortArray.toUShortArray(): UShortArray {\n    return UShortArray(this.copyOf())\n}\n\n/**\n * Returns a single
list of all elements yielded from results of [transform] function being invoked on each element of original array.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.flatMap(transform: (UInt) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.flatMap(transform: (ULong) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.flatMap(transform: (UByte) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Returns a single list of all elements yielded from results of [transform] function being
invoked on each element of original array.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.flatMap(transform: (UShort) -> Iterable<R>): List<R> {\n    return flatMapTo(ArrayList<R>(),
transform)\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element of original array, to the given [destination].\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> UIntArray.flatMapTo(destination: C, transform: (UInt) -> Iterable<R>): C {\n    for
(element in this) {\n        val list = transform(element)\n        destination.addAll(list)\n    }\n    return

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destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element of original array, to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> ULongArray.flatMapTo(destination: C, transform: (ULong) -> Iterable<R>): C {\n for
(element in this) {\n val list = transform(element)\n destination.addAll(list)\n }\n return
destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element of original array, to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> UByteArray.flatMapTo(destination: C, transform: (UByte) -> Iterable<R>): C {\n for
(element in this) {\n val list = transform(element)\n destination.addAll(list)\n }\n return
destination\n}\n\n/**\n * Appends all elements yielded from results of [transform] function being invoked on each
element of original array, to the given [destination].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> UShortArray.flatMapTo(destination: C, transform: (UShort) -> Iterable<R>): C {\n for
(element in this) {\n val list = transform(element)\n destination.addAll(list)\n }\n return
destination\n}\n\n/**\n * Groups elements of the original array by the key returned by the given [keySelector]
function\n * applied to each element and returns a map where each group key is associated with a list of
corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced from the
original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K>
UIntArray.groupBy(keySelector: (UInt) -> K): Map<K, List<UInt>> {\n return groupByTo(LinkedHashMap<K,
MutableList<UInt>>(), keySelector)\n}\n\n/**\n * Groups elements of the original array by the key returned by the
given [keySelector] function\n * applied to each element and returns a map where each group key is associated with
a list of corresponding elements.\n * \n * The returned map preserves the entry iteration order of the keys produced
from the original array.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K>
ULongArray.groupBy(keySelector: (ULong) -> K): Map<K, List<ULong>> {\n return
groupByTo(LinkedHashMap<K, MutableList<ULong>>(), keySelector)\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K>
UByteArray.groupBy(keySelector: (UByte) -> K): Map<K, List<UByte>> {\n return
groupByTo(LinkedHashMap<K, MutableList<UByte>>(), keySelector)\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each element and returns a map
where each group key is associated with a list of corresponding elements.\n * \n * The returned map preserves the
entry iteration order of the keys produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupBy\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K>
UShortArray.groupBy(keySelector: (UShort) -> K): Map<K, List<UShort>> {\n return
groupByTo(LinkedHashMap<K, MutableList<UShort>>(), keySelector)\n}\n\n/**\n * Groups values returned by
the [valueTransform] function applied to each element of the original array\n * by the key returned by the given
[keySelector] function applied to the element\n * and returns a map where each group key is associated with a list of
corresponding values.\n * \n * The returned map preserves the entry iteration order of the keys produced from the
original array.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V>
UIntArray.groupBy(keySelector: (UInt) -> K, valueTransform: (UInt) -> V): Map<K, List<V>> {\n return

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groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n *
by the key returned by the given [keySelector] function applied to the element\n * and
returns a map where each group key is associated with a list of corresponding values.\n *
\n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V>
ULongArray.groupBy(keySelector: (ULong) -> K, valueTransform: (ULong) -> V): Map<K, List<V>> {\n
return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n *
by the key returned by the given [keySelector] function applied to the element\n * and
returns a map where each group key is associated with a list of corresponding values.\n *
\n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V>
UByteArray.groupBy(keySelector: (UByte) -> K, valueTransform: (UByte) -> V): Map<K, List<V>> {\n
return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups values
returned by the [valueTransform] function applied to each element of the original array\n *
by the key returned by the given [keySelector] function applied to the element\n * and
returns a map where each group key is associated with a list of corresponding values.\n *
\n * The returned map preserves the entry iteration order of the keys
produced from the original array.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V>
UShortArray.groupBy(keySelector: (UShort) -> K, valueTransform: (UShort) -> V): Map<K, List<V>> {\n
return
groupByTo(LinkedHashMap<K, MutableList<V>>(), keySelector, valueTransform)\n}\n\n/**\n * Groups elements
of the original array by the key returned by the given [keySelector] function\n * applied to
each element and puts to the [destination] map each group key associated with a list of
corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M :
MutableMap<in K, MutableList<UInt>>> UIntArray.groupByTo(destination: M, keySelector: (UInt) -> K): M {\n
for (element in this) {\n
val key = keySelector(element)\n
val list = destination.getOrPut(key) {
ArrayList<UInt>() }\n
list.add(element)\n
}\n
return destination\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each
element and puts to the [destination] map each group key associated with a list of
corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M :
MutableMap<in K, MutableList<ULong>>> ULongArray.groupByTo(destination: M, keySelector: (ULong) -> K):
M {\n
for (element in this) {\n
val key = keySelector(element)\n
val list = destination.getOrPut(key) {
ArrayList<ULong>() }\n
list.add(element)\n
}\n
return destination\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each
element and puts to the [destination] map each group key associated with a list of
corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M :
MutableMap<in K, MutableList<UByte>>> UByteArray.groupByTo(destination: M, keySelector: (UByte) -> K):
M {\n
for (element in this) {\n
val key = keySelector(element)\n
val list = destination.getOrPut(key) {
ArrayList<UByte>() }\n
list.add(element)\n
}\n
return destination\n}\n\n/**\n * Groups elements of the
original array by the key returned by the given [keySelector] function\n * applied to each
element and puts to the [destination] map each group key associated with a list of
corresponding elements.\n * \n * @return The
[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n

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[destination] map.\n * \n * @sample samples.collections.Collections.Transformations.groupBy\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, M :
MutableMap<in K, MutableList<UShort>>> UShortArray.groupByTo(destination: M, keySelector: (UShort) -> K):
M {\n for (element in this) {\n val key = keySelector(element)\n val list = destination.getOrPut(key) {
ArrayList<UShort>() }\n list.add(element)\n }\n return destination\n}\n\n/**\n * Groups values returned by
the [valueTransform] function applied to each element of the original array\n * by the key returned by the given
[keySelector] function applied to the element\n * and puts to the [destination] map each group key associated with a
list of corresponding values.\n * \n * @return The [destination] map.\n * \n * @sample
samples.collections.Collections.Transformations.groupByKeysAndValues\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V,
M : MutableMap<in K, MutableList<V>>> UIntArray.groupByTo(destination: M, keySelector: (UInt) -> K,
valueTransform: (UInt) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list =
destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return
destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the
original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the
[destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination]
map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V,
M : MutableMap<in K, MutableList<V>>> ULongArray.groupByTo(destination: M, keySelector: (ULong) -> K,
valueTransform: (ULong) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list
= destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return
destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the
original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the
[destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination]
map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V,
M : MutableMap<in K, MutableList<V>>> UByteArray.groupByTo(destination: M, keySelector: (UByte) -> K,
valueTransform: (UByte) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list
= destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return
destination\n}\n\n/**\n * Groups values returned by the [valueTransform] function applied to each element of the
original array\n * by the key returned by the given [keySelector] function applied to the element\n * and puts to the
[destination] map each group key associated with a list of corresponding values.\n * \n * @return The [destination]
map.\n * \n * @sample samples.collections.Collections.Transformations.groupByKeysAndValues\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <K, V,
M : MutableMap<in K, MutableList<V>>> UShortArray.groupByTo(destination: M, keySelector: (UShort) -> K,
valueTransform: (UShort) -> V): M {\n for (element in this) {\n val key = keySelector(element)\n val list
= destination.getOrPut(key) { ArrayList<V>() }\n list.add(valueTransform(element))\n }\n return
destination\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each
element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.map(transform: (UInt) -> R): List<R> {\n return mapTo(ArrayList<R>(size), transform)\n}\n\n/**\n *
Returns a list containing the results of applying the given [transform] function\n * to each element in the original
array.\n * \n * @sample samples.collections.Collections.Transformations.map\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.map(transform: (ULong) -> R): List<R> {\n return mapTo(ArrayList<R>(size),
transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each
element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>

```

```

UByteArray.map(transform: (UByte) -> R): List<R> {\n  return mapTo(ArrayList<R>(size),
transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each
element in the original array.\n * \n * @sample samples.collections.Collections.Transformations.map\n
*/\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.map(transform: (UShort) -> R): List<R> {\n  return mapTo(ArrayList<R>(size),
transform)\n}\n\n/**\n * Returns a list containing the results of applying the given [transform] function\n * to each
element and its index in the original array.\n * @param [transform] function that takes the index of an element and
the element itself\n * and returns the result of the transform applied to the element.\n
*/\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.mapIndexed(transform: (index: Int, UInt) -> R): List<R> {\n  return
mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the
given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function
that takes the index of an element and the element itself\n * and returns the result of the transform applied to the
element.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun <R> ULongArray.mapIndexed(transform: (index: Int, ULong) -> R): List<R> {\n  return
mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the
given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function
that takes the index of an element and the element itself\n * and returns the result of the transform applied to the
element.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun <R> UByteArray.mapIndexed(transform: (index: Int, UByte) -> R): List<R> {\n  return
mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Returns a list containing the results of applying the
given [transform] function\n * to each element and its index in the original array.\n * @param [transform] function
that takes the index of an element and the element itself\n * and returns the result of the transform applied to the
element.\n */\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun <R> UShortArray.mapIndexed(transform: (index: Int, UShort) -> R): List<R> {\n  return
mapIndexedTo(ArrayList<R>(size), transform)\n}\n\n/**\n * Applies the given [transform] function to each
element and its index in the original array\n * and appends the results to the given [destination].\n * @param
[transform] function that takes the index of an element and the element itself\n * and returns the result of the
transform applied to the element.\n
*/\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> UIntArray.mapIndexedTo(destination: C, transform: (index: Int, UInt) -> R): C {\n  var
index = 0\n  for (item in this)\n    destination.add(transform(index++, item))\n  return destination\n}\n\n/**\n *
Applies the given [transform] function to each element and its index in the original array\n * and appends the results
to the given [destination].\n * @param [transform] function that takes the index of an element and the element
itself\n * and returns the result of the transform applied to the element.\n
*/\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> ULongArray.mapIndexedTo(destination: C, transform: (index: Int, ULong) -> R): C {\n
  var index = 0\n  for (item in this)\n    destination.add(transform(index++, item))\n  return
destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n
* and appends the results to the given [destination].\n * @param [transform] function that takes the index of an
element and the element itself\n * and returns the result of the transform applied to the element.\n
*/\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :
MutableCollection<in R>> UByteArray.mapIndexedTo(destination: C, transform: (index: Int, UByte) -> R): C {\n
  var index = 0\n  for (item in this)\n    destination.add(transform(index++, item))\n  return
destination\n}\n\n/**\n * Applies the given [transform] function to each element and its index in the original array\n
* and appends the results to the given [destination].\n * @param [transform] function that takes the index of an
element and the element itself\n * and returns the result of the transform applied to the element.\n
*/\n\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, C :

```

```

MutableCollection<in R>> UShortArray.mapIndexedTo(destination: C, transform: (index: Int, UShort) -> R): C {
    var index = 0
    for (item in this)
        destination.add(transform(index++, item))
    return destination
}

```

\* Applies the given [transform] function to each element of the original array \* and appends the results to the given [destination].

```

* @SinceKotlin("1.3") @ExperimentalUnsignedTypes @kotlin.internal.InlineOnly public inline fun <R, C :
MutableCollection<in R>> UIntArray.mapTo(destination: C, transform: (UInt) -> R): C {
    for (item in this)
        destination.add(transform(item))
    return destination
}

```

\* Applies the given [transform] function to each element of the original array \* and appends the results to the given [destination].

```

* @SinceKotlin("1.3") @ExperimentalUnsignedTypes @kotlin.internal.InlineOnly public inline fun <R, C :
MutableCollection<in R>> ULongArray.mapTo(destination: C, transform: (ULong) -> R): C {
    for (item in this)
        destination.add(transform(item))
    return destination
}

```

\* Applies the given [transform] function to each element of the original array \* and appends the results to the given [destination].

```

* @SinceKotlin("1.3") @ExperimentalUnsignedTypes @kotlin.internal.InlineOnly public inline fun <R, C :
MutableCollection<in R>> UByteArray.mapTo(destination: C, transform: (UByte) -> R): C {
    for (item in this)
        destination.add(transform(item))
    return destination
}

```

\* Applies the given [transform] function to each element of the original array \* and appends the results to the given [destination].

```

* @SinceKotlin("1.3") @ExperimentalUnsignedTypes @kotlin.internal.InlineOnly public inline fun <R, C :
MutableCollection<in R>> UShortArray.mapTo(destination: C, transform: (UShort) -> R): C {
    for (item in this)
        destination.add(transform(item))
    return destination
}

```

\* Returns a lazy [Iterable] that wraps each element of the original array \* into an [IndexedValue] containing the index of that element and the element itself.

```

* @SinceKotlin("1.3") @ExperimentalUnsignedTypes public fun UIntArray.withIndex():
Iterable<IndexedValue<UInt>> {
    return IndexingIterable { iterator() }
}

```

\* Returns a lazy [Iterable] that wraps each element of the original array \* into an [IndexedValue] containing the index of that element and the element itself.

```

* @SinceKotlin("1.3") @ExperimentalUnsignedTypes public fun ULongArray.withIndex():
Iterable<IndexedValue<ULong>> {
    return IndexingIterable { iterator() }
}

```

\* Returns a lazy [Iterable] that wraps each element of the original array \* into an [IndexedValue] containing the index of that element and the element itself.

```

* @SinceKotlin("1.3") @ExperimentalUnsignedTypes public fun UByteArray.withIndex():
Iterable<IndexedValue<UByte>> {
    return IndexingIterable { iterator() }
}

```

\* Returns a lazy [Iterable] that wraps each element of the original array \* into an [IndexedValue] containing the index of that element and the element itself.

```

* @SinceKotlin("1.3") @ExperimentalUnsignedTypes public fun UShortArray.withIndex():
Iterable<IndexedValue<UShort>> {
    return IndexingIterable { iterator() }
}

```

\* Returns `true` if all elements match the given [predicate].

```

* @sample samples.collections.Collections.Aggregates.all
* @SinceKotlin("1.3") @ExperimentalUnsignedTypes @kotlin.internal.InlineOnly public inline fun
UIntArray.all(predicate: (UInt) -> Boolean): Boolean {
    for (element in this) if (!predicate(element)) return false
    return true
}

```

\* Returns `true` if all elements match the given [predicate].

```

* @sample samples.collections.Collections.Aggregates.all
* @SinceKotlin("1.3") @ExperimentalUnsignedTypes @kotlin.internal.InlineOnly public inline fun
ULongArray.all(predicate: (ULong) -> Boolean): Boolean {
    for (element in this) if (!predicate(element)) return false
    return true
}

```

\* Returns `true` if all elements match the given [predicate].

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* @sample samples.collections.Collections.Aggregates.all
* @SinceKotlin("1.3") @ExperimentalUnsignedTypes @kotlin.internal.InlineOnly public inline fun
UByteArray.all(predicate: (UByte) -> Boolean): Boolean {
    for (element in this) if (!predicate(element)) return false
    return true
}

```

\* Returns `true` if all elements match the given [predicate].

```

* @sample samples.collections.Collections.Aggregates.all
* @SinceKotlin("1.3") @ExperimentalUnsignedTypes @kotlin.internal.InlineOnly public inline fun
UShortArray.all(predicate: (UShort) -> Boolean): Boolean {
    for (element in this) if (!predicate(element)) return false
    return true
}

```

\* Returns `true` if array has at least one element.

```

* @sample samples.collections.Collections.Aggregates.any

```

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.any(): Boolean {\n    return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.any(): Boolean {\n    return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one
element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.any(): Boolean {\n    return storage.any()\n}\n\n/**\n * Returns `true` if array has at least one
element.\n * \n * @sample samples.collections.Collections.Aggregates.any\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.any(): Boolean {\n    return storage.any()\n}\n\n/**\n * Returns `true` if at least one element matches
the given [predicate].\n * \n * @sample samples.collections.Collections.Aggregates.anyWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.any(predicate: (UInt) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return true\n
return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.anyWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.any(predicate: (ULong) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.any(predicate: (UByte) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns `true` if at least one element matches the given [predicate].\n * \n *
@sample samples.collections.Collections.Aggregates.anyWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.any(predicate: (UShort) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
true\n    return false\n}\n\n/**\n * Returns the number of elements matching the given [predicate].\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.count(predicate: (UInt) -> Boolean): Int {\n    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements matching the given
[predicate].\n * \n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun ULongArray.count(predicate: (ULong) -> Boolean): Int {\n    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements matching the given
[predicate].\n * \n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UByteArray.count(predicate: (UByte) -> Boolean): Int {\n    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Returns the number of elements matching the given
[predicate].\n * \n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun UShortArray.count(predicate: (UShort) -> Boolean): Int {\n    var count = 0\n    for (element in this) if
(predicate(element)) ++count\n    return count\n}\n\n/**\n * Accumulates value starting with [initial] value and
applying [operation] from left to right to current accumulator value and each element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.fold(initial: R, operation: (acc: R, UInt) -> R): R {\n    var accumulator = initial\n    for (element in this)
accumulator = operation(accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value starting
with [initial] value and applying [operation] from left to right to current accumulator value and each element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.fold(initial: R, operation: (acc: R, ULong) -> R): R {\n    var accumulator = initial\n    for (element in
this) accumulator = operation(accumulator, element)\n    return accumulator\n}\n\n/**\n * Accumulates value
starting with [initial] value and applying [operation] from left to right to current accumulator value and each

```

```

element.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun <R> UByteArray.fold(initial: R, operation: (acc: R, UByte) -> R): R {\n  var accumulator = initial\n  for
(element in this) accumulator = operation(accumulator, element)\n  return accumulator\n}\n\n/**\n * Accumulates
value starting with [initial] value and applying [operation] from left to right to current accumulator value and each
element.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun <R> UShortArray.fold(initial: R, operation: (acc: R, UShort) -> R): R {\n  var accumulator = initial\n  for
(element in this) accumulator = operation(accumulator, element)\n  return accumulator\n}\n\n/**\n * Accumulates
value starting with [initial] value and applying [operation] from left to right\n * to current accumulator value and
each element with its index in the original array.\n * @param [operation] function that takes the index of an element,
current accumulator value\n * and the element itself, and calculates the next accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UInt) -> R): R {\n  var index = 0\n  var
accumulator = initial\n  for (element in this) accumulator = operation(index++, accumulator, element)\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the
next accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.foldIndexed(initial: R, operation: (index: Int, acc: R, ULong) -> R): R {\n  var index = 0\n  var
accumulator = initial\n  for (element in this) accumulator = operation(index++, accumulator, element)\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the
next accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UByte) -> R): R {\n  var index = 0\n  var
accumulator = initial\n  for (element in this) accumulator = operation(index++, accumulator, element)\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself, and calculates the
next accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.foldIndexed(initial: R, operation: (index: Int, acc: R, UShort) -> R): R {\n  var index = 0\n  var
accumulator = initial\n  for (element in this) accumulator = operation(index++, accumulator, element)\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left
to each element and current accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.foldRight(initial: R, operation: (UInt, acc: R) -> R): R {\n  var index = lastIndex\n  var accumulator =
initial\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n  return
accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right to left
to each element and current accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.foldRight(initial: R, operation: (ULong, acc: R) -> R): R {\n  var index = lastIndex\n  var
accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n
return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right
to left to each element and current accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.foldRight(initial: R, operation: (UByte, acc: R) -> R): R {\n  var index = lastIndex\n  var

```

```

accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n
return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right
to left to each element and current accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.foldRight(initial: R, operation: (UShort, acc: R) -> R): R {\n  var index = lastIndex\n  var
accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(get(index--), accumulator)\n  }\n
return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying [operation] from right
to left\n * to each element with its index in the original array and current accumulator value.\n * @param
[operation] function that takes the index of an element, the element itself\n * and current accumulator value, and
calculates the next accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UIntArray.foldRightIndexed(initial: R, operation: (index: Int, UInt, acc: R) -> R): R {\n  var index = lastIndex\n
var accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(index, get(index), accumulator)\n
--index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with [initial] value and applying
[operation] from right to left\n * to each element with its index in the original array and current accumulator value.\n
* @param [operation] function that takes the index of an element, the element itself\n * and current accumulator
value, and calculates the next accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
ULongArray.foldRightIndexed(initial: R, operation: (index: Int, ULong, acc: R) -> R): R {\n  var index =
lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(index, get(index),
accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with [initial]
value and applying [operation] from right to left\n * to each element with its index in the original array and current
accumulator value.\n * @param [operation] function that takes the index of an element, the element itself\n * and
current accumulator value, and calculates the next accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UByteArray.foldRightIndexed(initial: R, operation: (index: Int, UByte, acc: R) -> R): R {\n  var index =
lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(index, get(index),
accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Accumulates value starting with [initial]
value and applying [operation] from right to left\n * to each element with its index in the original array and current
accumulator value.\n * @param [operation] function that takes the index of an element, the element itself\n * and
current accumulator value, and calculates the next accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R>
UShortArray.foldRightIndexed(initial: R, operation: (index: Int, UShort, acc: R) -> R): R {\n  var index =
lastIndex\n  var accumulator = initial\n  while (index >= 0) {\n    accumulator = operation(index, get(index),
accumulator)\n    --index\n  }\n  return accumulator\n}\n\n/**\n * Performs the given [action] on each
element.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UIntArray.forEach(action: (UInt) -> Unit): Unit {\n  for (element in this) action(element)\n}\n\n/**\n *
Performs the given [action] on each element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.forEach(action: (ULong) -> Unit): Unit {\n  for (element in this) action(element)\n}\n\n/**\n *
Performs the given [action] on each element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.forEach(action: (UByte) -> Unit): Unit {\n  for (element in this) action(element)\n}\n\n/**\n *
Performs the given [action] on each element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.forEach(action: (UShort) -> Unit): Unit {\n  for (element in this) action(element)\n}\n\n/**\n *
Performs the given [action] on each element, providing sequential index with the element.\n * @param [action]
function that takes the index of an element and the element itself\n * and performs the desired action on the

```

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element.\n *^@\n@SinceKotlin("\1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UIntArray.forEachIndexed(action: (index: Int, UInt) -> Unit): Unit {\n  var index = 0\n  for (item in this)
action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with
the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs
the desired action on the element.\n
*\n@SinceKotlin("\1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.forEachIndexed(action: (index: Int, ULong) -> Unit): Unit {\n  var index = 0\n  for (item in this)
action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with
the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs
the desired action on the element.\n
*\n@SinceKotlin("\1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.forEachIndexed(action: (index: Int, UByte) -> Unit): Unit {\n  var index = 0\n  for (item in this)
action(index++, item)\n}\n\n/**\n * Performs the given [action] on each element, providing sequential index with
the element.\n * @param [action] function that takes the index of an element and the element itself\n * and performs
the desired action on the element.\n
*\n@SinceKotlin("\1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.forEachIndexed(action: (index: Int, UShort) -> Unit): Unit {\n  var index = 0\n  for (item in this)
action(index++, item)\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n
*\n@SinceKotlin("\1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.max(): UInt? {\n  if (isEmpty())
return null\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (max < e) max = e\n  }\n  return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n
*\n@SinceKotlin("\1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.max(): ULong? {\n  if
(isEmpty()) return null\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (max < e) max
= e\n  }\n  return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n
*\n@SinceKotlin("\1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.max(): UByte? {\n  if
(isEmpty()) return null\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (max < e) max
= e\n  }\n  return max\n}\n\n/**\n * Returns the largest element or `null` if there are no elements.\n
*\n@SinceKotlin("\1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.max(): UShort? {\n  if
(isEmpty()) return null\n  var max = this[0]\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    if (max < e) max
= e\n  }\n  return max\n}\n\n/**\n * Returns the first element yielding the largest value of the given function or
`null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n
*\n@SinceKotlin("\1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UIntArray.maxBy(selector: (UInt) -> R): UInt? {\n  if (isEmpty()) return null\n  var maxElem
= this[0]\n  val lastIndex = this.lastIndex\n  if (lastIndex == 0) return maxElem\n  var maxValue =
selector(maxElem)\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    val v = selector(e)\n    if (maxValue < v)
{\n      maxElem = e\n      maxValue = v\n    }\n  }\n  return maxElem\n}\n\n/**\n * Returns the first
element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.maxBy\n
*\n@SinceKotlin("\1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> ULongArray.maxBy(selector: (ULong) -> R): ULong? {\n  if (isEmpty()) return null\n  var
maxElem = this[0]\n  val lastIndex = this.lastIndex\n  if (lastIndex == 0) return maxElem\n  var maxValue =
selector(maxElem)\n  for (i in 1..lastIndex) {\n    val e = this[i]\n    val v = selector(e)\n    if (maxValue < v)
{\n      maxElem = e\n      maxValue = v\n    }\n  }\n  return maxElem\n}\n\n/**\n * Returns the first
element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.maxBy\n
*\n@SinceKotlin("\1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UByteArray.maxBy(selector: (UByte) -> R): UByte? {\n  if (isEmpty()) return null\n  var
maxElem = this[0]\n  val lastIndex = this.lastIndex\n  if (lastIndex == 0) return maxElem\n  var maxValue =

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selector(maxElem)\n for (i in 1..lastIndex) {\n     val e = this[i]\n     val v = selector(e)\n     if (maxValue < v)\n     {\n         maxElem = e\n         maxValue = v\n     }\n }\n return maxElem\n}\n\n * Returns the first element yielding the largest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.maxBy\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UShortArray.maxBy(selector: (UShort) -> R): UShort? {\n    if (isEmpty()) return null\n    var maxElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return maxElem\n    var maxValue = selector(maxElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (maxValue < v)\n        {\n            maxElem = e\n            maxValue = v\n        }\n    }\n    return maxElem\n}\n\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.maxWith(comparator: Comparator<in UInt>): UInt? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.maxWith(comparator: Comparator<in ULong>): ULong? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.maxWith(comparator: Comparator<in UByte>): UByte? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n * Returns the first element having the largest value according to the provided [comparator] or `null` if there are no elements.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.maxWith(comparator: Comparator<in UShort>): UShort? {\n    if (isEmpty()) return null\n    var max = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (comparator.compare(max, e) < 0) max = e\n    }\n    return max\n}\n\n * Returns the smallest element or `null` if there are no elements.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.min(): UInt? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n * Returns the smallest element or `null` if there are no elements.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.min(): ULong? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n * Returns the smallest element or `null` if there are no elements.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.min(): UByte? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n * Returns the smallest element or `null` if there are no elements.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.min(): UShort? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        if (min > e) min = e\n    }\n    return min\n}\n\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> UIntArray.minBy(selector: (UInt) -> R): UInt? {\n    if (isEmpty()) return null\n    var minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue = selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)\n        {\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n * Returns the first element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample samples.collections.Collections.Aggregates.minBy\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R : Comparable<R>> ULongArray.minBy(selector: (ULong) -> R): ULong? {\n    if (isEmpty()) return null\n    var
```

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minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue =
selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)
{\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first
element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minBy\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UByteArray.minBy(selector: (UByte) -> R): UByte? {\n    if (isEmpty()) return null\n    var
minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue =
selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)
{\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first
element yielding the smallest value of the given function or `null` if there are no elements.\n * \n * @sample
samples.collections.Collections.Aggregates.minBy\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R :
Comparable<R>> UShortArray.minBy(selector: (UShort) -> R): UShort? {\n    if (isEmpty()) return null\n    var
minElem = this[0]\n    val lastIndex = this.lastIndex\n    if (lastIndex == 0) return minElem\n    var minValue =
selector(minElem)\n    for (i in 1..lastIndex) {\n        val e = this[i]\n        val v = selector(e)\n        if (minValue > v)
{\n            minElem = e\n            minValue = v\n        }\n    }\n    return minElem\n}\n\n/**\n * Returns the first
element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntArray.minWith(comparator:
Comparator<in UInt>): UInt? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n
val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the first
element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongArray.minWith(comparator:
Comparator<in ULong>): ULong? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n
val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the
first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByteArray.minWith(comparator:
Comparator<in UByte>): UByte? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n
val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns the
first element having the smallest value according to the provided [comparator] or `null` if there are no elements.\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShortArray.minWith(comparator:
Comparator<in UShort>): UShort? {\n    if (isEmpty()) return null\n    var min = this[0]\n    for (i in 1..lastIndex) {\n
val e = this[i]\n        if (comparator.compare(min, e) > 0) min = e\n    }\n    return min\n}\n\n/**\n * Returns
`true` if the array has no elements.\n * \n * @sample samples.collections.Collections.Aggregates.none\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.none(): Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n *
*\n * @sample samples.collections.Collections.Aggregates.none\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.none(): Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n *
*\n * @sample samples.collections.Collections.Aggregates.none\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.none(): Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if the array has no elements.\n * \n *
*\n * @sample samples.collections.Collections.Aggregates.none\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.none(): Boolean {\n    return isEmpty()\n}\n\n/**\n * Returns `true` if no elements match the given
[predicate].\n * \n * @sample samples.collections.Collections.Aggregates.noneWithPredicate\n
*\n*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.none(predicate: (UInt) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return

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false\n    return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.none(predicate: (ULong) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
false\n    return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.none(predicate: (UByte) -> Boolean): Boolean {\n    for (element in this) if (predicate(element)) return
false\n    return true\n}\n\n/**\n * Returns `true` if no elements match the given [predicate].\n * \n * @sample
samples.collections.Collections.Aggregates.noneWithPredicate\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.none(predicate: (UShort) -> Boolean): Boolean {\n    for (element in this) if (predicate(element))
return false\n    return true\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation]
from left to right to current accumulator value and each element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.reduce(operation: (acc: UInt, UInt) -> UInt): UInt {\n    if (isEmpty())\n        throw
UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for (index in
1..lastIndex) {\n        accumulator = operation(accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right to current accumulator
value and each element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.reduce(operation: (acc: ULong, ULong) -> ULong): ULong {\n    if (isEmpty())\n        throw
UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for (index in
1..lastIndex) {\n        accumulator = operation(accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right to current accumulator
value and each element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.reduce(operation: (acc: UByte, UByte) -> UByte): UByte {\n    if (isEmpty())\n        throw
UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for (index in
1..lastIndex) {\n        accumulator = operation(accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right to current accumulator
value and each element.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.reduce(operation: (acc: UShort, UShort) -> UShort): UShort {\n    if (isEmpty())\n        throw
UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for (index in
1..lastIndex) {\n        accumulator = operation(accumulator, this[index])\n    }\n    return accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to right\n * to current
accumulator value and each element with its index in the original array.\n * @param [operation] function that takes
the index of an element, current accumulator value\n * and the element itself and calculates the next accumulator
value.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.reduceIndexed(operation: (index: Int, acc: UInt, UInt) -> UInt): UInt {\n    if (isEmpty())\n        throw
UnsupportedOperationException("Empty array can't be reduced.")\n    var accumulator = this[0]\n    for (index in
1..lastIndex) {\n        accumulator = operation(index, accumulator, this[index])\n    }\n    return
accumulator\n}\n\n/**\n * Accumulates value starting with the first element and applying [operation] from left to
right\n * to current accumulator value and each element with its index in the original array.\n * @param [operation]
function that takes the index of an element, current accumulator value\n * and the element itself and calculates the
next accumulator value.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun

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ULongArray.reduceIndexed(operation: (index: Int, acc: ULong, ULong) -> ULong): ULong {
    if (isEmpty())
        throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(index, accumulator, this[index])
    }
    return accumulator
}
/** Accumulates value starting with the first element and applying [operation] from left to right
 * to current accumulator value and each element with its index in the original array.
 * @param [operation] function that takes the index of an element, current accumulator value
 * and the element itself and calculates the next accumulator value.
 */
@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly
public inline fun
UByteArray.reduceIndexed(operation: (index: Int, acc: UByte, UByte) -> UByte): UByte {
    if (isEmpty())
        throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(index, accumulator, this[index])
    }
    return accumulator
}
/** Accumulates value starting with the first element and applying [operation] from left to right
 * to current accumulator value and each element with its index in the original array.
 * @param [operation] function that takes the index of an element, current accumulator value
 * and the element itself and calculates the next accumulator value.
 */
@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly
public inline fun
UShortArray.reduceIndexed(operation: (index: Int, acc: UShort, UShort) -> UShort): UShort {
    if (isEmpty())
        throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = this[0]
    for (index in 1..lastIndex) {
        accumulator = operation(index, accumulator, this[index])
    }
    return accumulator
}
/** Accumulates value starting with last element and applying [operation] from right to left
 * to each element and current accumulator value.
 */
@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly
public inline fun
UIntArray.reduceRight(operation: (UInt, acc: UInt) -> UInt): UInt {
    var index = lastIndex
    if (index < 0)
        throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return accumulator
}
/** Accumulates value starting with last element and applying [operation] from right to left
 * to each element and current accumulator value.
 */
@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly
public inline fun
ULongArray.reduceRight(operation: (ULong, acc: ULong) -> ULong): ULong {
    var index = lastIndex
    if (index < 0)
        throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return accumulator
}
/** Accumulates value starting with last element and applying [operation] from right to left
 * to each element and current accumulator value.
 */
@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly
public inline fun
UByteArray.reduceRight(operation: (UByte, acc: UByte) -> UByte): UByte {
    var index = lastIndex
    if (index < 0)
        throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return accumulator
}
/** Accumulates value starting with last element and applying [operation] from right to left
 * to each element and current accumulator value.
 */
@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly
public inline fun
UShortArray.reduceRight(operation: (UShort, acc: UShort) -> UShort): UShort {
    var index = lastIndex
    if (index < 0)
        throw UnsupportedOperationException("Empty array can't be reduced.")
    var accumulator = get(index--)
    while (index >= 0) {
        accumulator = operation(get(index--), accumulator)
    }
    return accumulator
}
/** Accumulates value starting with last element and applying [operation] from right to left
 * to each element with its index in the original array and current accumulator value.
 * @param [operation] function that takes the index of an element, the element itself
 * and current accumulator value, and calculates the next accumulator value.
 */
@SinceKotlin("1.3")@ExperimentalUnsignedTypes@kotlin.internal.InlineOnly
public inline fun

```

UIntArray.reduceRightIndexed(operation: (index: Int, UInt, acc: UInt) -> UInt): UInt {\n var index = lastIndex\n if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n var accumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(index, get(index), accumulator)\n --index\n }\n return accumulator\n}\n\n/\*\*\n \* Accumulates value starting with last element and applying [operation] from right to left\n \* to each element with its index in the original array and current accumulator value.\n \* @param [operation] function that takes the index of an element, the element itself\n \* and current accumulator value, and calculates the next accumulator value.\n

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nULongArray.reduceRightIndexed(operation: (index: Int, ULong, acc: ULong) -> ULong): ULong {\n var index =\nlastIndex\n if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n var\naccumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(index, get(index),\naccumulator)\n --index\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with last element\n and applying [operation] from right to left\n * to each element with its index in the original array and current\n accumulator value.\n * @param [operation] function that takes the index of an element, the element itself\n * and\n current accumulator value, and calculates the next accumulator value.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUByteArray.reduceRightIndexed(operation: (index: Int, UByte, acc: UByte) -> UByte): UByte {\n var index =\nlastIndex\n if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n var\naccumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(index, get(index),\naccumulator)\n --index\n }\n return accumulator\n}\n\n/**\n * Accumulates value starting with last element\n and applying [operation] from right to left\n * to each element with its index in the original array and current\n accumulator value.\n * @param [operation] function that takes the index of an element, the element itself\n * and\n current accumulator value, and calculates the next accumulator value.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUShortArray.reduceRightIndexed(operation: (index: Int, UShort, acc: UShort) -> UShort): UShort {\n var index =\nlastIndex\n if (index < 0) throw UnsupportedOperationException("Empty array can't be reduced.")\n var\naccumulator = get(index--)\n while (index >= 0) {\n accumulator = operation(index, get(index),\naccumulator)\n --index\n }\n return accumulator\n}\n\n/**\n * Returns the sum of all values produced by\n [selector] function applied to each element in the array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUIntArray.sumBy(selector: (UInt) -> UInt): UInt {\n var sum: UInt = 0u\n for (element in this) {\n sum +=\nselector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector] function\n applied to each element in the array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nULongArray.sumBy(selector: (ULong) -> UInt): UInt {\n var sum: UInt = 0u\n for (element in this) {\n sum\n +=\nselector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]\n function applied to each element in the array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUByteArray.sumBy(selector: (UByte) -> UInt): UInt {\n var sum: UInt = 0u\n for (element in this) {\n sum\n +=\nselector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]\n function applied to each element in the array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUShortArray.sumBy(selector: (UShort) -> UInt): UInt {\n var sum: UInt = 0u\n for (element in this) {\n sum\n +=\nselector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by [selector]\n function applied to each element in the array.\n
```

```
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun\nUIntArray.sumByDouble(selector: (UInt) -> Double): Double {\n var sum: Double = 0.0\n for (element in this)\n {\n sum += selector(element)\n }\n return sum\n}\n\n/**\n * Returns the sum of all values produced by\n
```

```

[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.sumByDouble(selector: (ULong) -> Double): Double {\n    var sum: Double = 0.0\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UByteArray.sumByDouble(selector: (UByte) -> Double): Double {\n    var sum: Double = 0.0\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns the sum of all values produced by
[selector] function applied to each element in the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.sumByDouble(selector: (UShort) -> Double): Double {\n    var sum: Double = 0.0\n    for (element in
this) {\n        sum += selector(element)\n    }\n    return sum\n}\n\n/**\n * Returns a list of pairs built from the
elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UIntArray.zip(other: Array<out
R>): List<Pair<UInt, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from
the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> ULongArray.zip(other:
Array<out R>): List<Pair<ULong, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of
pairs built from the elements of `this` array and the [other] array with the same index.\n * The returned list has
length of the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UByteArray.zip(other: Array<out
R>): List<Pair<UByte, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built
from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the
shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UShortArray.zip(other:
Array<out R>): List<Pair<UShort, R>> {\n    return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of
values built from the elements of `this` array and the [other] array with the same index\n * using the provided
[transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n *
\n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
UIntArray.zip(other: Array<out R>, transform: (a: UInt, b: R) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i],
other[i]))\n    }\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the
[other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The
returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
ULongArray.zip(other: Array<out R>, transform: (a: ULong, b: R) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i],
other[i]))\n    }\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the
[other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The
returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
UByteArray.zip(other: Array<out R>, transform: (a: UByte, b: R) -> V): List<V> {\n    val size = minOf(size,
other.size)\n    val list = ArrayList<V>(size)\n    for (i in 0 until size) {\n        list.add(transform(this[i],
other[i]))\n    }\n    return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the
[other] array with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The
returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n

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}\n return list}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
UShortArray.zip(other: Array<out R>, transform: (a: UShort, b: R) -> V): List<V> {\n val size = minOf(size,
other.size)\n val list = ArrayList<V>(size)\n for (i in 0 until size) {\n list.add(transform(this[i], other[i]))\n
}\n return list}\n\n/**\n * Returns a list of pairs built from the elements of `this` collection and [other] array with
the same index.\n * The returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UIntArray.zip(other:
Iterable<R>): List<Pair<UInt, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs
built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of
the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> ULongArray.zip(other:
Iterable<R>): List<Pair<ULong, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs
built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of
the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UByteArray.zip(other:
Iterable<R>): List<Pair<UByte, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs
built from the elements of `this` collection and [other] array with the same index.\n * The returned list has length of
the shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun <R> UShortArray.zip(other:
Iterable<R>): List<Pair<UShort, R>> {\n return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of
values built from the elements of `this` array and the [other] collection with the same index\n * using the provided
[transform] function applied to each pair of elements.\n * The returned list has length of the shortest collection.\n *
\n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
UIntArray.zip(other: Iterable<R>, transform: (a: UInt, b: R) -> V): List<V> {\n val arraySize = size\n val list =
ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n var i = 0\n for (element in other) {\n
if (i >= arraySize) break\n list.add(transform(this[i++], element))\n }\n return list}\n\n/**\n * Returns a
list of values built from the elements of `this` array and the [other] collection with the same index\n * using the
provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
ULongArray.zip(other: Iterable<R>, transform: (a: ULong, b: R) -> V): List<V> {\n val arraySize = size\n val
list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n var i = 0\n for (element in other)
{\n if (i >= arraySize) break\n list.add(transform(this[i++], element))\n }\n return list}\n\n/**\n * Returns a
list of values built from the elements of `this` array and the [other] collection with the same index\n * using the
provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
UByteArray.zip(other: Iterable<R>, transform: (a: UByte, b: R) -> V): List<V> {\n val arraySize = size\n val list
= ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n var i = 0\n for (element in other) {\n
if (i >= arraySize) break\n list.add(transform(this[i++], element))\n }\n return list}\n\n/**\n * Returns a
list of values built from the elements of `this` array and the [other] collection with the same index\n * using the
provided [transform] function applied to each pair of elements.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterableWithTransform\n

```

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <R, V>
UShortArray.zip(other: Iterable<R>, transform: (a: UShort, b: R) -> V): List<V> {\n  val arraySize = size\n  val
list = ArrayList<V>(minOf(other.collectionSizeOrDefault(10), arraySize))\n  var i = 0\n  for (element in other)
{\n    if (i >= arraySize) break\n    list.add(transform(this[i++], element))\n  }\n  return list\n}\n\n/**\n *
Returns a list of pairs built from the elements of `this` array and the [other] array with the same index.\n * The
returned list has length of the shortest collection.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UIntArray.zip(other: UIntArray):
List<Pair<UInt, UInt>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built from
the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the shortest
collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun ULongArray.zip(other: ULongArray):
List<Pair<ULong, ULong>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built
from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the
shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UByteArray.zip(other: UByteArray):
List<Pair<UByte, UByte>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of pairs built
from the elements of `this` array and the [other] array with the same index.\n * The returned list has length of the
shortest collection.\n * \n * @sample samples.collections.Iterables.Operations.zipIterable\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UShortArray.zip(other: UShortArray):
List<Pair<UShort, UShort>> {\n  return zip(other) { t1, t2 -> t1 to t2 }\n}\n\n/**\n * Returns a list of values built
from the elements of `this` array and the [other] array with the same index\n * using the provided [transform]
function applied to each pair of elements.\n * The returned list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UIntArray.zip(other: UIntArray, transform: (a: UInt, b: UInt) -> V): List<V> {\n  val size = minOf(size,
other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n
}\n  return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
ULongArray.zip(other: ULongArray, transform: (a: ULong, b: ULong) -> V): List<V> {\n  val size = minOf(size,
other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n
}\n  return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UByteArray.zip(other: UByteArray, transform: (a: UByte, b: UByte) -> V): List<V> {\n  val size = minOf(size,
other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n
}\n  return list\n}\n\n/**\n * Returns a list of values built from the elements of `this` array and the [other] array
with the same index\n * using the provided [transform] function applied to each pair of elements.\n * The returned
list has length of the shortest array.\n * \n * @sample
samples.collections.Iterables.Operations.zipIterableWithTransform\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun <V>
UShortArray.zip(other: UShortArray, transform: (a: UShort, b: UShort) -> V): List<V> {\n  val size = minOf(size,
other.size)\n  val list = ArrayList<V>(size)\n  for (i in 0 until size) {\n    list.add(transform(this[i], other[i]))\n
}

```

```

}\n  return list\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*\n@kotlin.jvm.JvmName("sumOfUInt")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Array<out UInt>.sum(): UInt {\n  var sum: UInt = 0u\n  for (element in this) {\n    sum += element\n  }\n
return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*\n@kotlin.jvm.JvmName("sumOfULong")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Array<out ULong>.sum(): ULong {\n  var sum: ULong = 0uL\n  for (element in this) {\n    sum += element\n
}\n  return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*\n@kotlin.jvm.JvmName("sumOfUByte")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Array<out UByte>.sum(): UInt {\n  var sum: UInt = 0u\n  for (element in this) {\n    sum += element\n  }\n
return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*\n@kotlin.jvm.JvmName("sumOfUShort")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Array<out UShort>.sum(): UInt {\n  var sum: UInt = 0u\n  for (element in this) {\n    sum += element\n  }\n
return sum\n}\n\n/**\n * Returns the sum of all elements in the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntArray.sum(): UInt {\n  return storage.sum().toUInt()\n}\n\n/**\n * Returns the sum of all elements in the
array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongArray.sum(): ULong {\n  return storage.sum().toULong()\n}\n\n/**\n * Returns the sum of all elements in
the array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun UByteArray.sum(): UInt {\n  return sumBy { it.toUInt() }\n}\n\n/**\n * Returns the sum of all elements in the
array.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UShortArray.sum(): UInt {\n  return sumBy { it.toUInt() }\n}\n\n", "/*\n * Copyright 2010-2019 JetBrains s.r.o.
and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("UCollectionsKt")\n\npackage
kotlin.collections\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\nimport
kotlin.ranges.contains\nimport kotlin.ranges.reversed\n\n/**\n * Returns an array of UByte containing all of the
elements of this collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Collection<UByte>.toUByteArray(): UByteArray {\n  val result = UByteArray(size)\n  var index = 0\n  for
(element in this)\n    result[index++] = element\n  return result\n}\n\n/**\n * Returns an array of UInt containing
all of the elements of this collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Collection<UInt>.toUIntArray(): UIntArray {\n  val result = UIntArray(size)\n  var index = 0\n  for (element in
this)\n    result[index++] = element\n  return result\n}\n\n/**\n * Returns an array of ULong containing all of the
elements of this collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Collection<ULong>.toULongArray(): ULongArray {\n  val result = ULongArray(size)\n  var index = 0\n  for
(element in this)\n    result[index++] = element\n  return result\n}\n\n/**\n * Returns an array of UShort
containing all of the elements of this collection.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun Collection<UShort>.toUShortArray():
UShortArray {\n  val result = UShortArray(size)\n  var index = 0\n  for (element in this)\n    result[index++] =
element\n  return result\n}\n\n/**\n * Returns the sum of all elements in the collection.\n
*\n@kotlin.jvm.JvmName("sumOfUInt")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Iterable<UInt>.sum(): UInt {\n  var sum: UInt = 0u\n  for (element in this) {\n    sum += element\n  }\n
return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n
*\n@kotlin.jvm.JvmName("sumOfULong")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Iterable<ULong>.sum(): ULong {\n  var sum: ULong = 0uL\n  for (element in this) {\n    sum += element\n
}\n  return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n
*\n@kotlin.jvm.JvmName("sumOfUByte")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Iterable<UByte>.sum(): UInt {\n  var sum: UInt = 0u\n  for (element in this) {\n    sum += element\n  }\n
return sum\n}\n\n

```

```

return sum\n}\n\n/**\n * Returns the sum of all elements in the collection.\n
*\n@kotlin.jvm.JvmName("sumOfUShort")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Iterable<UShort>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum += element\n    }\n
return sum\n}\n\n", "/*\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n
* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("UComparisonsKt")\n\npackage
kotlin.comparisons\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\n\n/**\n * Returns the
greater of two values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: UInt, b:
UInt): UInt {\n    return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: ULong, b: ULong): ULong {\n
return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: UByte, b: UByte): UByte {\n
return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of two values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun maxOf(a: UShort, b: UShort): UShort {\n
return if (a >= b) a else b\n}\n\n/**\n * Returns the greater of three values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
maxOf(a: UInt, b: UInt, c: UInt): UInt {\n    return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater of three
values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun maxOf(a: ULong, b: ULong, c: ULong): ULong {\n    return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the
greater of three values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
maxOf(a: UByte, b: UByte, c: UByte): UByte {\n    return maxOf(a, maxOf(b, c))\n}\n\n/**\n * Returns the greater
of three values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun maxOf(a: UShort, b: UShort, c: UShort): UShort {\n    return maxOf(a, maxOf(b, c))\n}\n\n/**\n *
Returns the smaller of two values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
minOf(a: UInt, b: UInt): UInt {\n    return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: ULong, b: ULong): ULong {\n
return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UByte, b: UByte): UByte {\n
return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of two values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun minOf(a: UShort, b: UShort): UShort {\n
return if (a <= b) a else b\n}\n\n/**\n * Returns the smaller of three values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
minOf(a: UInt, b: UInt, c: UInt): UInt {\n    return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller of three
values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
fun minOf(a: ULong, b: ULong, c: ULong): ULong {\n    return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the
smaller of three values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
minOf(a: UByte, b: UByte, c: UByte): UByte {\n    return minOf(a, minOf(b, c))\n}\n\n/**\n * Returns the smaller
of three values.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic
inline fun minOf(a: UShort, b: UShort, c: UShort): UShort {\n    return minOf(a, minOf(b, c))\n}\n\n", "/*\n *
Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\n
* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("URangesKt")\n\npackage
kotlin.ranges\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\n\n/**\n * Returns a
random element from this range.\n
*\n * @throws IllegalArgumentException if this range is empty.\n

```

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
UIntRange.random(): UInt {\n    return random(Random)\n}\n\n/**\n * Returns a random element from this range.\n
 * \n * @throws IllegalArgumentException if this range is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline fun
ULongRange.random(): ULong {\n    return random(Random)\n}\n\n/**\n * Returns a random element from this
range using the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is
empty.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntRange.random(random:
Random): UInt {\n    try {\n        return random.nextUInt(this)\n    } catch(e: IllegalArgumentException) {\n
throw NoSuchElementException(e.message)\n    }\n}\n\n/**\n * Returns a random element from this range using
the specified source of randomness.\n * \n * @throws IllegalArgumentException if this range is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongRange.random(random: Random):
ULong {\n    try {\n        return random.nextULong(this)\n    } catch(e: IllegalArgumentException) {\n    throw
NoSuchElementException(e.message)\n    }\n}\n\n/**\n * Returns `true` if this range contains the specified
[element].\n * \n * Always returns `false` if the [element] is `null`.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline operator fun
UIntRange.contains(element: UInt?): Boolean {\n    return element != null && contains(element)\n}\n\n/**\n *
Returns `true` if this range contains the specified [element].\n * \n * Always returns `false` if the [element] is
`null`.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\n@kotlin.internal.InlineOnly\npublic inline
operator fun ULongRange.contains(element: ULong?): Boolean {\n    return element != null &&
contains(element)\n}\n\n/**\n * Checks if the specified [value] belongs to this range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic operator fun UIntRange.contains(value:
UByte): Boolean {\n    return contains(value.toUInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this
range.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic operator fun
ULongRange.contains(value: UByte): Boolean {\n    return contains(value.toULong())\n}\n\n/**\n * Checks if the
specified [value] belongs to this range.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
operator fun ULongRange.contains(value: UInt): Boolean {\n    return contains(value.toULong())\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic operator fun UIntRange.contains(value:
ULong): Boolean {\n    return (value shr UInt.SIZE_BITS) == 0uL && contains(value.toUInt())\n}\n\n/**\n *
Checks if the specified [value] belongs to this range.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic operator fun UIntRange.contains(value:
UShort): Boolean {\n    return contains(value.toUInt())\n}\n\n/**\n * Checks if the specified [value] belongs to this
range.\n *\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic operator fun
ULongRange.contains(value: UShort): Boolean {\n    return contains(value.toULong())\n}\n\n/**\n * Returns a
progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less
than or equal to `this` value.\n * \n * If the [to] value is greater than `this` value the returned progression is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UByte.downTo(to: UByte):
UIntProgression {\n    return UIntProgression.fromClosedRange(this.toUInt(), to.toUInt(), -1)\n}\n\n/**\n * Returns
a progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less
than or equal to `this` value.\n * \n * If the [to] value is greater than `this` value the returned progression is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UInt.downTo(to: UInt):
UIntProgression {\n    return UIntProgression.fromClosedRange(this, to, -1)\n}\n\n/**\n * Returns a progression
from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less than or equal
to `this` value.\n * \n * If the [to] value is greater than `this` value the returned progression is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun ULong.downTo(to: ULong):
ULongProgression {\n    return ULongProgression.fromClosedRange(this, to, -1L)\n}\n\n/**\n * Returns a
progression from this value down to the specified [to] value with the step -1.\n * \n * The [to] value should be less
than or equal to `this` value.\n * \n * If the [to] value is greater than `this` value the returned progression is empty.\n

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*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UShort.downTo(to: UShort):
UIntProgression {\n    return UIntProgression.fromClosedRange(this.toUInt(), to.toUInt(), -1)\n}\n\n/**\n * Returns
a progression that goes over the same range in the opposite direction with the same step.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UIntProgression.reversed():
UIntProgression {\n    return UIntProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a
progression that goes over the same range in the opposite direction with the same step.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULongProgression.reversed():
ULongProgression {\n    return ULongProgression.fromClosedRange(last, first, -step)\n}\n\n/**\n * Returns a
progression that goes over the same range with the given step.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UIntProgression.step(step: Int):
UIntProgression {\n    checkStepIsPositive(step > 0, step)\n    return UIntProgression.fromClosedRange(first, last, if
(this.step > 0) step else -step)\n}\n\n/**\n * Returns a progression that goes over the same range with the given
step.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun ULongProgression.step(step:
Long): ULongProgression {\n    checkStepIsPositive(step > 0, step)\n    return
ULongProgression.fromClosedRange(first, last, if (this.step > 0) step else -step)\n}\n\n/**\n * Returns a range from
this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value,
then the returned range is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun
UByte.until(to: UByte): UIntRange {\n    if (to <= UByte.MIN_VALUE) return UIntRange.EMPTY\n    return
this.toUInt() .. (to - 1u).toUInt()\n}\n\n/**\n * Returns a range from this value up to but excluding the specified [to]
value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned range is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UInt.until(to: UInt): UIntRange {\n
if (to <= UInt.MIN_VALUE) return UIntRange.EMPTY\n    return this .. (to - 1u).toUInt()\n}\n\n/**\n * Returns a
range from this value up to but excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to
`this` value, then the returned range is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic
infix fun ULong.until(to: ULong): ULongRange {\n    if (to <= ULong.MIN_VALUE) return
ULongRange.EMPTY\n    return this .. (to - 1u).toULong()\n}\n\n/**\n * Returns a range from this value up to but
excluding the specified [to] value.\n * \n * If the [to] value is less than or equal to `this` value, then the returned
range is empty.\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic infix fun UShort.until(to:
UShort): UIntRange {\n    if (to <= UShort.MIN_VALUE) return UIntRange.EMPTY\n    return this.toUInt() .. (to -
1u).toUInt()\n}\n\n/**\n * Ensures that this value is not less than the specified [minimumValue].\n * \n * @return
this value if it's greater than or equal to the [minimumValue] or the [minimumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UInt.coerceAtLeast(minimumValue: UInt):
UInt {\n    return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value is not less
than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the [minimumValue]
or the [minimumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULong.coerceAtLeast(minimumValue:
ULong): ULong {\n    return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this
value is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the
[minimumValue] or the [minimumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UByte.coerceAtLeast(minimumValue:
UByte): UByte {\n    return if (this < minimumValue) minimumValue else this\n}\n\n/**\n * Ensures that this value
is not less than the specified [minimumValue].\n * \n * @return this value if it's greater than or equal to the
[minimumValue] or the [minimumValue] otherwise.\n * \n * @sample
samples.comparisons.ComparableOps.coerceAtLeastUnsigned\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShort.coerceAtLeast(minimumValue:

```

```

UShort): UShort {
    return if (this < minimumValue) minimumValue else this
}

@SinceKotlin("1.3")@ExperimentalUnsignedTypes
public fun UInt.coerceAtMost(maximumValue: UInt):
UInt {
    return if (this > maximumValue) maximumValue else this
}

@SinceKotlin("1.3")@ExperimentalUnsignedTypes
public fun ULong.coerceAtMost(maximumValue:
ULong): ULong {
    return if (this > maximumValue) maximumValue else this
}

@SinceKotlin("1.3")@ExperimentalUnsignedTypes
public fun UByte.coerceAtMost(maximumValue:
UByte): UByte {
    return if (this > maximumValue) maximumValue else this
}

@SinceKotlin("1.3")@ExperimentalUnsignedTypes
public fun UShort.coerceAtMost(maximumValue:
UShort): UShort {
    return if (this > maximumValue) maximumValue else this
}

@SinceKotlin("1.3")@ExperimentalUnsignedTypes
public fun UInt.coerceIn(minimumValue: UInt,
maximumValue: UInt): UInt {
    if (minimumValue > maximumValue) throw IllegalArgumentException("Cannot
coerce value to an empty range: maximum $maximumValue is less than minimum $minimumValue.")
    if (this <
minimumValue) return minimumValue
    if (this > maximumValue) return maximumValue
    return
this
}

@SinceKotlin("1.3")@ExperimentalUnsignedTypes
public fun ULong.coerceIn(minimumValue: ULong,
maximumValue: ULong): ULong {
    if (minimumValue > maximumValue) throw
IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")
    if (this < minimumValue) return minimumValue
    if (this > maximumValue)
return maximumValue
    return this
}

@SinceKotlin("1.3")@ExperimentalUnsignedTypes
public fun UByte.coerceIn(minimumValue: UByte,
maximumValue: UByte): UByte {
    if (minimumValue > maximumValue) throw
IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")
    if (this < minimumValue) return minimumValue
    if (this > maximumValue)
return maximumValue
    return this
}

```

```

*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UShort.coerceIn(minimumValue: UShort,
maximumValue: UShort): UShort {\n    if (minimumValue > maximumValue) throw
IllegalArgumentException("Cannot coerce value to an empty range: maximum $maximumValue is less than
minimum $minimumValue.")\n    if (this < minimumValue) return minimumValue\n    if (this > maximumValue)
return maximumValue\n    return this\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n *
@return this value if it's in the [range], or `range.start` if this value is less than `range.start`, or `range.endInclusive`
if this value is greater than `range.endInclusive`.\n * \n * @sample
samples.comparisons.ComparableOps.coerceInUnsigned\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun UInt.coerceIn(range: ClosedRange<UInt>):
UInt {\n    if (range is ClosedFloatingPointRange) {\n        return this.coerceIn<UInt>(range)\n    }\n    if
(range.isEmpty()) throw IllegalArgumentException("Cannot coerce value to an empty range: $range.")\n    return
when {\n        this < range.start -> range.start\n        this > range.endInclusive -> range.endInclusive\n        else ->
this\n    }\n}\n\n/**\n * Ensures that this value lies in the specified [range].\n * \n * @return this value if it's in the
[range], or `range.start` if this value is less than `range.start`, or `range.endInclusive` if this value is greater than
`range.endInclusive`.\n * \n * @sample samples.comparisons.ComparableOps.coerceInUnsigned\n
*\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun ULong.coerceIn(range:
ClosedRange<ULong>): ULong {\n    if (range is ClosedFloatingPointRange) {\n        return
this.coerceIn<ULong>(range)\n    }\n    if (range.isEmpty()) throw IllegalArgumentException("Cannot coerce value
to an empty range: $range.")\n    return when {\n        this < range.start -> range.start\n        this >
range.endInclusive -> range.endInclusive\n        else -> this\n    }\n}\n\n"/*\n * Copyright 2010-2019 JetBrains
s.r.o. and Kotlin Programming Language contributors.\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\n
*\n\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("USequencesKt")\n\npackage
kotlin.sequences\n\n/\n// NOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\n\nimport kotlin.random.*\n\n/**\n * Returns the
sum of all elements in the sequence.\n * \n * The operation is _terminal_.\n
*\n@kotlin.jvm.JvmName("sumOfUInt")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Sequence<UInt>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum += element\n    }\n
return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n * \n * The operation is _terminal_.\n
*\n@kotlin.jvm.JvmName("sumOfULong")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Sequence<ULong>.sum(): ULong {\n    var sum: ULong = 0uL\n    for (element in this) {\n        sum += element\n
    }\n    return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n * \n * The operation is
_terminal_.\n
*\n@kotlin.jvm.JvmName("sumOfUByte")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Sequence<UByte>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum += element\n    }\n
return sum\n}\n\n/**\n * Returns the sum of all elements in the sequence.\n * \n * The operation is _terminal_.\n
*\n@kotlin.jvm.JvmName("sumOfUShort")\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun
Sequence<UShort>.sum(): UInt {\n    var sum: UInt = 0u\n    for (element in this) {\n        sum += element\n    }\n
return sum\n}\n\n"/*\n * Copyright 2010-2015 JetBrains s.r.o.\n * Licensed under the Apache License,
Version 2.0 (the "License");\n * you may not use this file except in compliance with the License.\n * You may
obtain a copy of the License at\n * http://www.apache.org/licenses/LICENSE-2.0\n * Unless required
by applicable law or agreed to in writing, software\n * distributed under the License is distributed on an "AS IS"
BASIS,\n * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.\n * See
the License for the specific language governing permissions and\n * limitations under the License.\n
*\n\npackage kotlin.annotation\nimport kotlin.annotation.AnnotationTarget.*\n\n/**\n * Contains the
list of code elements which are the possible annotation targets\n * \n * @public enum class AnnotationTarget {\n
\n    /** Class, interface or object, annotation class is also included\n    * \n    * @Annotation class only\n
    ANNOTATION_CLASS,\n
\n    /** Generic type parameter (unsupported yet)\n    * \n    * @TYPE_PARAMETER,\n

```



```

@UnsafeVariance E): Boolean\r\n\r\n    override fun iterator(): Iterator<E>\r\n\r\n    // Bulk Operations\r\n    /**\r\n    * Checks if all elements in the specified collection are contained in this collection.\r\n    */\r\n    public fun
containsAll(elements: Collection<@UnsafeVariance E>): Boolean\r\n\r\n    /**\r\n    * A generic collection of
elements that supports adding and removing elements.\r\n    */\r\n    * @param E the type of elements contained in the
collection. The mutable collection is invariant on its element type.\r\n    */\r\n    public interface MutableCollection<E> :
Collection<E>, MutableIterable<E> {\r\n    // Query Operations\r\n    override fun iterator():
MutableIterator<E>\r\n\r\n    // Modification Operations\r\n    /**\r\n    * Adds the specified element to the
collection.\r\n    */\r\n    * @return `true` if the element has been added, `false` if the collection does not support
duplicates\r\n    * and the element is already contained in the collection.\r\n    */\r\n    public fun add(element: E):
Boolean\r\n\r\n    /**\r\n    * Removes a single instance of the specified element from this\r\n    * collection, if it is
present.\r\n    */\r\n    * @return `true` if the element has been successfully removed; `false` if it was not present in
the collection.\r\n    */\r\n    public fun remove(element: E): Boolean\r\n\r\n    // Bulk Modification Operations\r\n
/**\r\n    * Adds all of the elements of the specified collection to this collection.\r\n    */\r\n    * @return `true` if
any of the specified elements was added to the collection, `false` if the collection was not modified.\r\n    */\r\n
public fun addAll(elements: Collection<E>): Boolean\r\n\r\n    /**\r\n    * Removes all of this collection's elements
that are also contained in the specified collection.\r\n    */\r\n    * @return `true` if any of the specified elements was
removed from the collection, `false` if the collection was not modified.\r\n    */\r\n    public fun
removeAll(elements: Collection<E>): Boolean\r\n\r\n    /**\r\n    * Retains only the elements in this collection that
are contained in the specified collection.\r\n    */\r\n    * @return `true` if any element was removed from the
collection, `false` if the collection was not modified.\r\n    */\r\n    public fun retainAll(elements: Collection<E>):
Boolean\r\n\r\n    /**\r\n    * Removes all elements from this collection.\r\n    */\r\n    public fun clear():
Unit\r\n\r\n    /**\r\n    * A generic ordered collection of elements. Methods in this interface support only read-only
access to the list;\r\n    * read/write access is supported through the [MutableList] interface.\r\n    * @param E the type
of elements contained in the list. The list is covariant on its element type.\r\n    */\r\n    public interface List<out E> :
Collection<E> {\r\n    // Query Operations\r\n\r\n    override val size: Int\r\n    override fun isEmpty(): Boolean\r\n
    override fun contains(element: @UnsafeVariance E): Boolean\r\n    override fun iterator(): Iterator<E>\r\n\r\n    //
Bulk Operations\r\n    override fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean\r\n\r\n    //
Positional Access Operations\r\n    /**\r\n    * Returns the element at the specified index in the list.\r\n    */\r\n
public operator fun get(index: Int): E\r\n\r\n    // Search Operations\r\n    /**\r\n    * Returns the index of the first
occurrence of the specified element in the list, or -1 if the specified\r\n    * element is not contained in the list.\r\n
*/\r\n    public fun indexOf(element: @UnsafeVariance E): Int\r\n\r\n    /**\r\n    * Returns the index of the last
occurrence of the specified element in the list, or -1 if the specified\r\n    * element is not contained in the list.\r\n
*/\r\n    public fun lastIndexOf(element: @UnsafeVariance E): Int\r\n\r\n    // List Iterators\r\n    /**\r\n    * Returns
a list iterator over the elements in this list (in proper sequence).\r\n    */\r\n    public fun listIterator():
ListIterator<E>\r\n\r\n    /**\r\n    * Returns a list iterator over the elements in this list (in proper sequence), starting
at the specified [index].\r\n    */\r\n    public fun listIterator(index: Int): ListIterator<E>\r\n\r\n    // View\r\n
/**\r\n    * Returns a view of the portion of this list between the specified [fromIndex] (inclusive) and [toIndex]
(exclusive).\r\n    * The returned list is backed by this list, so non-structural changes in the returned list are reflected
in this list, and vice-versa.\r\n    * Structural changes in the base list make the behavior of the view
undefined.\r\n    */\r\n    public fun subList(fromIndex: Int, toIndex: Int): List<E>\r\n\r\n    /**\r\n    * A generic
ordered collection of elements that supports adding and removing elements.\r\n    * @param E the type of elements
contained in the list. The mutable list is invariant on its element type.\r\n    */\r\n    public interface MutableList<E> :
List<E>, MutableCollection<E> {\r\n    // Modification Operations\r\n    /**\r\n    * Adds the specified element to
the end of this list.\r\n    */\r\n    * @return `true` because the list is always modified as the result of this
operation.\r\n    */\r\n    override fun add(element: E): Boolean\r\n\r\n    override fun remove(element: E):
Boolean\r\n\r\n    // Bulk Modification Operations\r\n    /**\r\n    * Adds all of the elements of the specified
collection to the end of this list.\r\n    */\r\n    * The elements are appended in the order they appear in the [elements]
collection.\r\n    */\r\n    * @return `true` if the list was changed as the result of the operation.\r\n    */\r\n
override

```

```

fun addAll(elements: Collection<E>): Boolean {
    /** Inserts all of the elements of the specified
    collection [elements] into this list at the specified [index].
    * @return `true` if the list was changed as
    the result of the operation.
    */
    public fun addAll(index: Int, elements: Collection<E>): Boolean {
        override fun removeAll(elements: Collection<E>): Boolean {
            override fun retainAll(elements: Collection<E>):
            Boolean {
                override fun clear(): Unit {
                    // Positional Access Operations
                }
                /** Replaces the
                element at the specified position in this list with the specified element.
                * @return the element
                previously at the specified position.
                */
                public operator fun set(index: Int, element: E): E {
                    /** Inserts an element into the list at the specified [index].
                    */
                    public fun add(index: Int, element: E):
                    Unit {
                        /** Removes an element at the specified [index] from the list.
                        * @return the
                        element that has been removed.
                        */
                        public fun removeAt(index: Int): E {
                            // List Iterators
                        }
                        override fun listIterator(): MutableListIterator<E> {
                            override fun listIterator(index: Int):
                            MutableListIterator<E> {
                                // View
                            }
                            override fun subList(fromIndex: Int, toIndex: Int):
                            MutableList<E> {
                                /** A generic unordered collection of elements that does not support duplicate
                                elements.
                                * Methods in this interface support only read-only access to the set;
                                * read/write access is
                                supported through the [MutableSet] interface.
                                * @param E the type of elements contained in the set. The set is
                                covariant on its element type.
                                */
                                public interface Set<out E> : Collection<E> {
                                    // Query
                                    Operations
                                }
                                override val size: Int {
                                    override fun isEmpty(): Boolean {
                                        override fun contains(element:
                                        @UnsafeVariance E): Boolean {
                                            override fun iterator(): Iterator<E> {
                                                // Bulk Operations
                                            }
                                            override fun containsAll(elements: Collection<@UnsafeVariance E>): Boolean {
                                                /** A generic unordered
                                                collection of elements that does not support duplicate elements, and supports
                                                * adding and removing
                                                elements.
                                                * @param E the type of elements contained in the set. The mutable set is invariant on its element
                                                type.
                                                */
                                                public interface MutableSet<E> : Set<E>, MutableCollection<E> {
                                                    // Query Operations
                                                }
                                                override fun iterator(): MutableIterator<E> {
                                                    // Modification Operations
                                                }
                                                /** Adds the
                                                specified element to the set.
                                                * @return `true` if the element has been added, `false` if the element is
                                                already contained in the set.
                                                */
                                                override fun add(element: E): Boolean {
                                                    override fun
                                                    remove(element: E): Boolean {
                                                        // Bulk Modification Operations
                                                    }
                                                    override fun addAll(elements:
                                                    Collection<E>): Boolean {
                                                        override fun removeAll(elements: Collection<E>): Boolean {
                                                            override fun
                                                            retainAll(elements: Collection<E>): Boolean {
                                                                override fun clear(): Unit {
                                                                    /** A collection that
                                                                    holds pairs of objects (keys and values) and supports efficiently retrieving
                                                                    * the value corresponding to each key.
                                                                    Map keys are unique; the map holds only one value for each key.
                                                                    * Methods in this interface support only read-
                                                                    only access to the map; read-write access is supported through
                                                                    * the [MutableMap] interface.
                                                                    * @param K
                                                                    the type of map keys. The map is invariant on its key type, as it
                                                                    * can accept key as a parameter (of
                                                                    [containsKey] for example) and return it in [keys] set.
                                                                    * @param V the type of map values. The map is covariant
                                                                    on its value type.
                                                                    */
                                                                    public interface Map<K, out V> {
                                                    // Query Operations
                                                }
                                                /** Returns the
                                                number of key/value pairs in the map.
                                                */
                                                public val size: Int {
                                                    /** Returns `true` if the map
                                                    is empty (contains no elements), `false` otherwise.
                                                    */
                                                    public fun isEmpty(): Boolean {
                                                        /** Returns `true` if the map contains the specified [key].
                                                        */
                                                        public fun containsKey(key: K): Boolean {
                                                            /** Returns `true` if the map maps one or more keys to the specified [value].
                                                            */
                                                            public fun
                                                            containsValue(value: @UnsafeVariance V): Boolean {
                                                                /** Returns the value corresponding to the
                                                                given [key], or `null` if such a key is not present in the map.
                                                                */
                                                                public operator fun get(key: K): V? {
                                                                    /** Returns the value corresponding to the given [key], or [defaultValue] if such a key is not present in the
                                                                    map.
                                                                    * @since JDK 1.8
                                                                    */
                                                                    @SinceKotlin("1.1")
                                                                    @PlatformDependent
                                                                    public fun getOrDefault(key: K, defaultValue: @UnsafeVariance V): V {
                                                    // See default implementation in JDK
                                                    sources
                                                    return null as V {
                                                        }
                                                    // Views
                                                }
                                                /** Returns a read-only [Set] of all keys in
                                                this map.
                                                */
                                                public val keys: Set<K> {
                                                    /** Returns a read-only [Collection] of all values in
                                                    this map. Note that this collection may contain duplicate values.
                                                    */
                                                    public val values:
                                                    Collection<V> {
                                                        /** Returns a read-only [Set] of all key/value pairs in this map.
                                                        */
                                                        public val entries: Set<Map.Entry<K, V>> {
                                                            /** Represents a key/value pair held by a [Map].
                                                            */

```

```

public interface Entry<out K, out V> {
    /**
     * Returns the key of this key/value pair.
     */
    public val key: K
    /**
     * Returns the value of this key/value pair.
     */
    public val value: V
}

/**
 * A modifiable collection that holds pairs of objects (keys and values) and
 * supports efficiently retrieving the value corresponding to each key. Map keys are unique; the map holds only
 * one value for each key.
 * @param K the type of map keys. The map is invariant on its key type.
 * @param V the type of map values. The mutable map is invariant on its value type.
 */
public interface MutableMap<K, V> : Map<K, V> {
    // Modification Operations
    /**
     * Associates the specified [value] with the
     * specified [key] in the map.
     * @return the previous value associated with the key, or `null` if the key
     * was not present in the map.
     */
    public fun put(key: K, value: V): V?
    /**
     * Removes the
     * specified key and its corresponding value from this map.
     * @return the previous value associated with
     * the key, or `null` if the key was not present in the map.
     */
    public fun remove(key: K): V?
    /**
     * Removes the entry for the specified key only if it is mapped to the specified value.
     * @return true
     * if entry was removed
     */
    @SinceKotlin("1.1")
    @PlatformDependent
    public fun remove(key:
    K, value: V): Boolean
    // See default implementation in JDK sources
    return true
}

// Bulk Modification Operations
/**
 * Updates this map with key/value pairs from the specified map
 * [from].
 */
public fun putAll(from: Map<out K, V>): Unit
/**
 * Removes all elements
 * from this map.
 */
public fun clear(): Unit
// Views
/**
 * Returns a [MutableSet] of all
 * keys in this map.
 */
override val keys: MutableSet<K>
/**
 * Returns a
 * [MutableCollection] of all values in this map. Note that this collection may contain duplicate values.
 */
override val values: MutableCollection<V>
/**
 * Returns a [MutableSet] of all key/value pairs in this
 * map.
 */
override val entries: MutableSet<MutableMap.MutableEntry<K, V>>

/**
 * Represents a key/value pair held by a [MutableMap].
 */
public interface MutableEntry<K, V> :
    Map.Entry<K, V> {
    /**
     * Changes the value associated with the key of this entry.
     * @return the previous value corresponding to the key.
     */
    public fun setValue(newValue: V): V
}

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 * applicable law or agreed to in writing, software
 * distributed under the License is distributed on an "AS IS"
 * BASIS,
 * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
 * See
 * the License for the specific language governing permissions and
 * limitations under the License.
 */
@Target(AnnotationTarget.FUNCTION)
@Retention(AnnotationRetention.BINARY)
internal
annotation class PlatformDependent

/**
 * Specifies that the corresponding type parameter is not used for
 * unsafe operations such as casts or 'is' checks
 * That means it's completely safe to use generic types as argument
 * for such parameter.
 */
@Target(AnnotationTarget.TYPE_PARAMETER)
@Retention(AnnotationRetention.BINARY)
internal
annotation class PureReifiable

/**
 * Specifies that the corresponding built-in method exists depending on
 * platform.
 * Current implementation for JVM looks whether method with same JVM descriptor exists in the
 * module JDK.
 * For example MutableMap.remove(K, V) available only if corresponding method
 * 'java.util.Map.remove(Ljava/lang/Object;Ljava/lang/Object;)Z' is defined in JDK (i.e. for major versions >= 8)
 */
@Target(AnnotationTarget.FUNCTION)
@Retention(AnnotationRetention.BINARY)
internal
annotation class PlatformDependent

/**
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 * license/LICENSE.txt file.
 */
@Target(AnnotationTarget.FUNCTION)
@Retention(AnnotationRetention.BINARY)
internal
annotation class PlatformDependent

// Arithmetic Operations
/**
 * a mod b (in arithmetical sense)
 */
private fun
mod(a: Int, b: Int): Int {
    val mod = a % b
    return if (mod >= 0) mod else mod + b
}
private fun
mod(a: Long, b: Long): Long {
    val mod = a % b
    return if (mod >= 0) mod else mod + b
}
// (a -
// b) mod c
private fun
differenceModulo(a: Int, b: Int, c: Int): Int {
    return mod(mod(a, c) - mod(b, c),
    c)
}
private fun
differenceModulo(a: Long, b: Long, c: Long): Long {
    return mod(mod(a, c) - mod(b,
    c), c)
}

/**
 * Calculates the final element of a bounded arithmetic progression, i.e. the last element of
 * the progression which is in the range from [start] to [end] in case of a positive [step], or from [end] to [start] in

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```

case of a negative\r\n * [step].\r\n *\r\n * No validation on passed parameters is performed. The given parameters
should satisfy the condition:\r\n *\r\n * - either `step > 0` and `start <= end`,\r\n *\r\n * - or `step < 0` and `start >=
end`.\r\n *\r\n * @param start first element of the progression\r\n * @param end ending bound for the
progression\r\n * @param step increment, or difference of successive elements in the progression\r\n * @return the
final element of the progression\r\n * @suppress\r\n * /\r\n * @PublishedApi\r\n * internal fun
getProgressionLastElement(start: Int, end: Int, step: Int): Int = when {\r\n    step > 0 -> if (start >= end) end else end
- differenceModulo(end, start, step)\r\n    step < 0 -> if (start <= end) end else end + differenceModulo(start, end, -
step)\r\n    else -> throw kotlin.IllegalArgumentException("Step is zero.")\r\n}\r\n\r\n/**\r\n * Calculates the final
element of a bounded arithmetic progression, i.e. the last element of the progression which is in the range\r\n * from
[start] to [end] in case of a positive [step], or from [end] to [start] in case of a negative\r\n * [step].\r\n *\r\n * No
validation on passed parameters is performed. The given parameters should satisfy the condition:\r\n *\r\n * - either
`step > 0` and `start <= end`,\r\n *\r\n * - or `step < 0` and `start >= end`.\r\n *\r\n * @param start first element of the
progression\r\n * @param end ending bound for the progression\r\n * @param step increment, or difference of
successive elements in the progression\r\n * @return the final element of the progression\r\n * @suppress\r\n
*/\r\n * @PublishedApi\r\n * internal fun getProgressionLastElement(start: Long, end: Long, step: Long): Long = when
{\r\n    step > 0 -> if (start >= end) end else end - differenceModulo(end, start, step)\r\n    step < 0 -> if (start <= end)
end else end + differenceModulo(start, end, -step)\r\n    else -> throw kotlin.IllegalArgumentException("Step is
zero.")\r\n}\r\n\r\n"/*\r\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n
*\r\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt
file.\r\n *\r\n */\r\n\r\n// Auto-generated file. DO NOT EDIT!\r\n\r\n\r\npackage kotlin.collections\r\n\r\n/** An iterator over
a sequence of values of type `Byte`. */\r\n\r\npublic abstract class ByteIterator : Iterator<Byte> {\r\n    override final fun
next() = nextByte()\r\n}\r\n\r\n/** Returns the next value in the sequence without boxing. */\r\n\r\npublic abstract fun
nextByte(): Byte\r\n}\r\n\r\n/** An iterator over a sequence of values of type `Char`. */\r\n\r\npublic abstract class
CharIterator : Iterator<Char> {\r\n    override final fun next() = nextChar()\r\n}\r\n\r\n/** Returns the next value in the
sequence without boxing. */\r\n\r\npublic abstract fun nextChar(): Char\r\n}\r\n\r\n/** An iterator over a sequence of
values of type `Short`. */\r\n\r\npublic abstract class ShortIterator : Iterator<Short> {\r\n    override final fun next() =
nextShort()\r\n}\r\n\r\n/** Returns the next value in the sequence without boxing. */\r\n\r\npublic abstract fun
nextShort(): Short\r\n}\r\n\r\n/** An iterator over a sequence of values of type `Int`. */\r\n\r\npublic abstract class
IntIterator : Iterator<Int> {\r\n    override final fun next() = nextInt()\r\n}\r\n\r\n/** Returns the next value in the
sequence without boxing. */\r\n\r\npublic abstract fun nextInt(): Int\r\n}\r\n\r\n/** An iterator over a sequence of
values of type `Long`. */\r\n\r\npublic abstract class LongIterator : Iterator<Long> {\r\n    override final fun next() =
nextLong()\r\n}\r\n\r\n/** Returns the next value in the sequence without boxing. */\r\n\r\npublic abstract fun
nextLong(): Long\r\n}\r\n\r\n/** An iterator over a sequence of values of type `Float`. */\r\n\r\npublic abstract class
FloatIterator : Iterator<Float> {\r\n    override final fun next() = nextFloat()\r\n}\r\n\r\n/** Returns the next value in
the sequence without boxing. */\r\n\r\npublic abstract fun nextFloat(): Float\r\n}\r\n\r\n/** An iterator over a
sequence of values of type `Double`. */\r\n\r\npublic abstract class DoubleIterator : Iterator<Double> {\r\n    override
final fun next() = nextDouble()\r\n}\r\n\r\n/** Returns the next value in the sequence without boxing. */\r\n\r\npublic
abstract fun nextDouble(): Double\r\n}\r\n\r\n/** An iterator over a sequence of values of type `Boolean`. */\r\n\r\n
public abstract class BooleanIterator : Iterator<Boolean> {\r\n    override final fun next() =
nextBoolean()\r\n}\r\n\r\n/** Returns the next value in the sequence without boxing. */\r\n\r\npublic abstract fun
nextBoolean(): Boolean\r\n}\r\n\r\n"/*\r\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming
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license/LICENSE.txt file.\r\n *\r\n */\r\n\r\n// Auto-generated file. DO NOT EDIT!\r\n\r\n\r\npackage
kotlin.ranges\r\n\r\n/**\r\n * An iterator over a progression of values of type `Char`. */\r\n\r\n * @property step the
number by which the value is incremented on each step.\r\n * /\r\n * internal class CharProgressionIterator(first: Char,
last: Char, val step: Int) : CharIterator() {\r\n    private val finalElement = last.toInt()\r\n    private var hasNext:
Boolean = if (step > 0) first <= last else first >= last\r\n    private var next = if (hasNext) first.toInt() else
finalElement\r\n}\r\n\r\n override fun hasNext(): Boolean = hasNext\r\n\r\n override fun nextChar(): Char {\r\n

```

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val value = next\r\n    if (value == finalElement) {\r\n        if (!hasNext) throw
kotlin.NoSuchElementException()\r\n        hasNext = false\r\n    }\r\n    else {\r\n        next += step\r\n
}\r\n    return value.toChar()\r\n    }\r\n}\r\n\r\n/**\r\n * An iterator over a progression of values of type `Int`.\r\n * @property step the number by which the value is incremented on each step.\r\n */\r\ninternal class
IntProgressionIterator(first: Int, last: Int, val step: Int) : IntIterator() {\r\n    private val finalElement = last\r\n
private var hasNext: Boolean = if (step > 0) first <= last else first >= last\r\n    private var next = if (hasNext) first
else finalElement\r\n\r\n    override fun hasNext(): Boolean = hasNext\r\n\r\n    override fun nextInt(): Int {\r\n
val value = next\r\n    if (value == finalElement) {\r\n        if (!hasNext) throw
kotlin.NoSuchElementException()\r\n        hasNext = false\r\n    }\r\n    else {\r\n        next += step\r\n
}\r\n    return value\r\n    }\r\n}\r\n\r\n/**\r\n * An iterator over a progression of values of type `Long`.\r\n *
@property step the number by which the value is incremented on each step.\r\n */\r\ninternal class
LongProgressionIterator(first: Long, last: Long, val step: Long) : LongIterator() {\r\n    private val finalElement =
last\r\n    private var hasNext: Boolean = if (step > 0) first <= last else first >= last\r\n    private var next = if
(hasNext) first else finalElement\r\n\r\n    override fun hasNext(): Boolean = hasNext\r\n\r\n    override fun
nextLong(): Long {\r\n        val value = next\r\n        if (value == finalElement) {\r\n            if (!hasNext) throw
kotlin.NoSuchElementException()\r\n            hasNext = false\r\n        }\r\n        else {\r\n            next += step\r\n
}\r\n        return value\r\n    }\r\n}\r\n\r\n"/\r\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming
Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\r\n */\r\n\r\n// Auto-generated file. DO NOT EDIT!\r\n\r\npackage
kotlin.ranges\r\n\r\nimport kotlin.internal.getProgressionLastElement\r\n\r\n/**\r\n * A progression of values of
type `Char`.\r\n */\r\npublic open class CharProgression\r\n    internal constructor(\r\n        start: Char,\r\n
        endInclusive: Char,\r\n        step: Int\r\n    ) : Iterable<Char> {\r\n    init {\r\n        if (step == 0) throw
kotlin.IllegalArgumentException("Step must be non-zero.")\r\n        if (step == Int.MIN_VALUE) throw
kotlin.IllegalArgumentException("Step must be greater than Int.MIN_VALUE to avoid overflow on
negation.")\r\n    }\r\n\r\n    /**\r\n     * The first element in the progression.\r\n     */\r\n    public val first: Char =
start\r\n\r\n    /**\r\n     * The last element in the progression.\r\n     */\r\n    public val last: Char =
getProgressionLastElement(start.toInt(), endInclusive.toInt(), step).toChar()\r\n\r\n    /**\r\n     * The step of the
progression.\r\n     */\r\n    public val step: Int = step\r\n\r\n    override fun iterator(): CharIterator =
CharProgressionIterator(first, last, step)\r\n\r\n    /** Checks if the progression is empty. */\r\n    public open fun
isEmpty(): Boolean = if (step > 0) first > last else first < last\r\n\r\n    override fun equals(other: Any?): Boolean
= \r\n        other is CharProgression && (isEmpty() && other.isEmpty() ||\r\n            first == other.first && last ==
other.last && step == other.step)\r\n\r\n    override fun hashCode(): Int = \r\n        if (isEmpty()) -1 else (31 * (31 *
first.toInt() + last.toInt()) + step)\r\n\r\n    override fun toString(): String = if (step > 0) "$first..$last step $step" else
"$first downTo $last step ${-step}"\r\n\r\n    companion object {\r\n        /**\r\n         * Creates CharProgression
within the specified bounds of a closed range.\r\n         * The progression starts with the [rangeStart] value and
goes toward the [rangeEnd] value not excluding it, with the specified [step].\r\n         * In order to go backwards the
[step] must be negative.\r\n         * [step] must be greater than `Int.MIN_VALUE` and not equal to
zero.\r\n         */\r\n        public fun fromClosedRange(rangeStart: Char, rangeEnd: Char, step: Int): CharProgression
= CharProgression(rangeStart, rangeEnd, step)\r\n    }\r\n}\r\n\r\n/**\r\n * A progression of values of type `Int`.\r\n
*/\r\npublic open class IntProgression\r\n    internal constructor(\r\n        start: Int,\r\n        endInclusive:
Int,\r\n        step: Int\r\n    ) : Iterable<Int> {\r\n    init {\r\n        if (step == 0) throw
kotlin.IllegalArgumentException("Step must be non-zero.")\r\n        if (step == Int.MIN_VALUE) throw
kotlin.IllegalArgumentException("Step must be greater than Int.MIN_VALUE to avoid overflow on
negation.")\r\n    }\r\n\r\n    /**\r\n     * The first element in the progression.\r\n     */\r\n    public val first: Int =
start\r\n\r\n    /**\r\n     * The last element in the progression.\r\n     */\r\n    public val last: Int =
getProgressionLastElement(start.toInt(), endInclusive.toInt(), step).toInt()\r\n\r\n    /**\r\n     * The step of the
progression.\r\n     */\r\n    public val step: Int = step\r\n\r\n    override fun iterator(): IntIterator =
IntProgressionIterator(first, last, step)\r\n\r\n    /** Checks if the progression is empty. */\r\n    public open fun

```

```

isEmpty(): Boolean = if (step > 0) first > last else first < last\r\n\r\n    override fun equals(other: Any?): Boolean
= \r\n    other is IntProgression && (isEmpty() && other.isEmpty()) || \r\n    first == other.first && last ==
other.last && step == other.step)\r\n\r\n    override fun hashCode(): Int = \r\n    if (isEmpty()) -1 else (31 * (31 *
first + last) + step)\r\n\r\n    override fun toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first
downTo $last step ${-step}\" \r\n\r\n    companion object { \r\n    /** \r\n    * Creates IntProgression within the
specified bounds of a closed range. \r\n\r\n    * The progression starts with the [rangeStart] value and goes toward
the [rangeEnd] value not excluding it, with the specified [step]. \r\n\r\n    * In order to go backwards the [step] must
be negative. \r\n\r\n    * [step] must be greater than `Int.MIN_VALUE` and not equal to zero. \r\n\r\n
*/ \r\n    public fun fromClosedRange(rangeStart: Int, rangeEnd: Int, step: Int): IntProgression =
IntProgression(rangeStart, rangeEnd, step) \r\n    } \r\n\r\n    /** \r\n    * A progression of values of type `Long`. \r\n\r\n
*/ \r\n    public open class LongProgression \r\n    internal constructor \r\n    ( \r\n    start: Long, \r\n
endInclusive: Long, \r\n    step: Long \r\n    ): Iterable<Long> { \r\n    init { \r\n    if (step == 0L) throw
kotlin.IllegalArgumentException(\"Step must be non-zero.\") \r\n    if (step == Long.MIN_VALUE) throw
kotlin.IllegalArgumentException(\"Step must be greater than Long.MIN_VALUE to avoid overflow on
negation.\") \r\n    } \r\n\r\n    /** \r\n    * The first element in the progression. \r\n\r\n    */ \r\n    public val first: Long =
start \r\n\r\n    /** \r\n    * The last element in the progression. \r\n\r\n    */ \r\n    public val last: Long =
getProgressionLastElement(start.toLong(), endInclusive.toLong(), step).toLong() \r\n\r\n    /** \r\n    * The step of
the progression. \r\n\r\n    */ \r\n    public val step: Long = step \r\n\r\n    override fun iterator(): LongIterator =
LongProgressionIterator(first, last, step) \r\n\r\n    /** Checks if the progression is empty. */ \r\n    public open fun
isEmpty(): Boolean = if (step > 0) first > last else first < last \r\n\r\n    override fun equals(other: Any?): Boolean
= \r\n    other is LongProgression && (isEmpty() && other.isEmpty()) || \r\n    first == other.first && last ==
other.last && step == other.step)\r\n\r\n    override fun hashCode(): Int = \r\n    if (isEmpty()) -1 else (31 * (31 *
(first xor (first ushr 32)) + (last xor (last ushr 32))) + (step xor (step ushr 32))).toInt() \r\n\r\n    override fun
toString(): String = if (step > 0) \"$first..$last step $step\" else \"$first downTo $last step ${-step}\" \r\n\r\n
companion object { \r\n    /** \r\n    * Creates LongProgression within the specified bounds of a closed
range. \r\n\r\n    * The progression starts with the [rangeStart] value and goes toward the [rangeEnd] value not
excluding it, with the specified [step]. \r\n\r\n    * In order to go backwards the [step] must be negative. \r\n\r\n
*/ \r\n    * [step] must be greater than `Long.MIN_VALUE` and not equal to zero. \r\n\r\n    */ \r\n    public fun
fromClosedRange(rangeStart: Long, rangeEnd: Long, step: Long): LongProgression = LongProgression(rangeStart,
rangeEnd, step) \r\n    } \r\n\r\n    /** \r\n    * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming
Language contributors. \r\n    * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file. \r\n    */ \r\n    /** \r\n    * Represents a range of values (for
example, numbers or characters). \r\n    * See the [Kotlin language
documentation](https://kotlinlang.org/docs/reference/ranges.html) for more information. \r\n\r\n    */ \r\n    public interface
ClosedRange<T: Comparable<T>> { \r\n    /** \r\n    * The minimum value in the range. \r\n\r\n    */ \r\n    public val
start: T \r\n\r\n    /** \r\n    * The maximum value in the range (inclusive). \r\n\r\n    */ \r\n    public val endInclusive:
T \r\n\r\n    /** \r\n    * Checks whether the specified [value] belongs to the range. \r\n\r\n    */ \r\n    public operator fun
contains(value: T): Boolean = value >= start && value <= endInclusive \r\n\r\n    /** \r\n    * Checks whether the
range is empty. \r\n\r\n    */ \r\n    public fun isEmpty(): Boolean = start > endInclusive \r\n    } \r\n\r\n    /** \r\n    * Copyright
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may not use this file except in compliance with the License. \r\n    * You may obtain a copy of the License at \r\n    *
http://www.apache.org/licenses/LICENSE-2.0 \r\n    * Unless required by applicable law or agreed to in
writing, software \r\n    * distributed under the License is distributed on an \"AS IS\" BASIS, \r\n    * WITHOUT
WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. \r\n    * See the License for the
specific language governing permissions and \r\n    * limitations under the License. \r\n    */ \r\n\r\n    /** \r\n    * Represents a parameter passed to a function or a property getter/setter, \r\n    * including
`this` and extension receiver parameters. \r\n\r\n    */ \r\n    public interface KParameter : KAnnotatedElement { \r\n    /** \r\n    * 0-based index of this parameter in the parameter list of its containing callable. \r\n\r\n    */ \r\n    public val index:

```

Int\r\n\r\n /\*\*\r\n \* Name of this parameter as it was declared in the source code,\r\n \* or `null` if the parameter has no name or its name is not available at runtime.\r\n \* Examples of nameless parameters include `this` instance for member functions,\r\n \* extension receiver for extension functions or properties, parameters of Java methods\r\n \* compiled without the debug information, and others.\r\n \*/\r\n public val name: String?\r\n\r\n /\*\*\r\n \* Type of this parameter. For a `vararg` parameter, this is the type of the corresponding array,\r\n \* not the individual element.\r\n \*/\r\n public val type: KType\r\n\r\n /\*\*\r\n \* Kind of this parameter.\r\n \*/\r\n public val kind: Kind\r\n\r\n /\*\*\r\n \* Kind represents a particular position of the parameter declaration in the source code,\r\n \* such as an instance, an extension receiver parameter or a value parameter.\r\n \*/\r\n public enum class Kind {\r\n /\*\* Instance required to make a call to the member, or an outer class instance for an inner class constructor. \*/\r\n INSTANCE,\r\n /\*\* Extension receiver of an extension function or property. \*/\r\n EXTENSION\_RECEIVER,\r\n /\*\* Ordinary named value parameter. \*/\r\n VALUE,\r\n }\r\n\r\n /\*\*\r\n \* `true` if this parameter is optional and can be omitted when making a call via [KCallable.callBy], or `false` otherwise.\r\n \*/\r\n \* A parameter is optional in any of the two cases:\r\n \* 1. The default value is provided at the declaration of this parameter.\r\n \* 2. The parameter is declared in a member function and one of the corresponding parameters in the super functions is optional.\r\n \*/\r\n public val isOptional: Boolean\r\n\r\n /\*\*\r\n \* `true` if this parameter is `vararg`.\r\n \* See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/functions.html#variable-number-of-arguments-varargs)\r\n \* for more information.\r\n \*/\r\n @SinceKotlin("1.1")\r\n public val isVararg: Boolean\r\n}\r\n","/\*\*\r\n \* Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n \*/\r\n\r\npackage kotlin.reflect\r\n\r\n/\*\*\r\n \* Represents a type. Type is usually either a class with optional type arguments,\r\n \* or a type parameter of some declaration, plus nullability.\r\n \*/\r\n\r\npublic interface KType : KAnnotatedElement {\r\n /\*\*\r\n \* The declaration of the classifier used in this type.\r\n \* For example, in the type `List<String>` the classifier would be the [KClass] instance for [List].\r\n \*/\r\n \* Returns `null` if this type is not denotable in Kotlin, for example if it is an intersection type.\r\n \*/\r\n @SinceKotlin("1.1")\r\n public val classifier: KClassifier?\r\n\r\n /\*\*\r\n \* Type arguments passed for the parameters of the classifier in this type.\r\n \* For example, in the type `Array<out Number>` the only type argument is `out Number`.\r\n \* In case this type is based on an inner class, the returned list contains the type arguments provided for the innermost class first,\r\n \* then its outer class, and so on.\r\n \* For example, in the type `Outer<A, B>.Inner<C, D>` the returned list is `[C, D, A, B]`.\r\n \*/\r\n @SinceKotlin("1.1")\r\n public val arguments: List<KTypeProjection>\r\n\r\n /\*\*\r\n \* `true` if this type was marked nullable in the source code.\r\n \* For Kotlin types, it means that `null` value is allowed to be represented by this type.\r\n \* In practice it means that the type was declared with a question mark at the end.\r\n \* For non-Kotlin types, it means the type or the symbol which was declared with this type\r\n \* is annotated with a runtime-retained nullability annotation such as [javax.annotation.Nullable].\r\n \* Note that even if [isMarkedNullable] is false, values of the type can still be `null`.\r\n \* This may happen if it is a type of the type parameter with a nullable upper bound:\r\n \* ```\r\n \* fun <T> foo(t: T) {\r\n \* // isMarkedNullable == false for t's type, but t can be null here when T = `Any?`\r\n \* }\r\n \* ```\r\n \*/\r\n public val isMarkedNullable: Boolean\r\n}\r\n\r\n\r\n/\*\*\r\n \* Represents a type projection. Type projection is usually the argument to another type in a type usage.\r\n \* For example, in the type `Array<out Number>`, `out Number` is the covariant projection of the type represented by the class `Number`.\r\n \* Type projection is either the star projection, or an entity consisting of a specific type plus optional variance.\r\n \* See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/generics.html#type-projections)\r\n \* for more information.\r\n \*/\r\n @SinceKotlin("1.1")\r\n public data class KTypeProjection constructor(\r\n /\*\*\r\n \* The use-site variance specified in the projection, or `null` if this is a star projection.\r\n \*/\r\n public val variance: KVariance?,\r\n /\*\*\r\n \* The type specified in the projection, or `null` if this is a star projection.\r\n \*/\r\n public val type: KType?) {\r\n public companion object {\r\n /\*\*\r\n \* Star projection, denoted by the `\*` character.\r\n \* For example, in the type `KClass<\*>`, `\*` is the star projection.\r\n \*/\r\n \*

See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/generics.html#star-projections) for more information.

```

public val STAR: KTypeProjection = KTypeProjection(null, null)
/**
 * Creates an invariant projection of a given type. Invariant projection is just the type itself,
 * without any use-site variance modifiers applied to it.
 * For example, in the type `Set<String>`, `String` is an invariant projection of the type represented by the class `String`.
 */
public fun invariant(type: KType): KTypeProjection = KTypeProjection(KVariance.INVARIANT, type)
/**
 * Creates a contravariant projection of a given type, denoted by the `in` modifier applied to a type.
 * For example, in the type `MutableList<in Number>`, `in Number` is a contravariant projection of the type of class `Number`.
 */
public fun contravariant(type: KType): KTypeProjection = KTypeProjection(KVariance.IN, type)
/**
 * Creates a covariant projection of a given type, denoted by the `out` modifier applied to a type.
 * For example, in the type `Array<out Number>`, `out Number` is a covariant projection of the type of class `Number`.
 */
public fun covariant(type: KType): KTypeProjection = KTypeProjection(KVariance.OUT, type)
}

```

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`kotlin.reflect` Represents variance applied to a type parameter on the declaration site (\*declaration-site variance\*), or to a type in a projection (\*use-site variance\*). See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/generics.html#variance) for more information.

@see [KTypeParameter.variance] @see [KTypeProjection]

enum class KVariance {
 /\*\*
 \* The affected type parameter or type is \*invariant\*, which means it has no variance applied to it.
 \*/
 INVARIANT,
 /\*\*
 \* The affected type parameter or type is \*contravariant\*. Denoted by the `in` modifier in the source code.
 \*/
 IN,
 /\*\*
 \* The affected type parameter or type is \*covariant\*. Denoted by the `out` modifier in the source code.
 \*/
 OUT,
}

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`kotlin.reflect` Visibility is an aspect of a Kotlin declaration regulating where that declaration is accessible in the source code. Visibility can be changed with one of the following modifiers: `public`, `protected`, `internal`, `private`. Note that some Java visibilities such as package-private and protected (which also gives access to items from the same package) cannot be represented in Kotlin, so there's no [KVisibility] value corresponding to them. See the [Kotlin language documentation](https://kotlinlang.org/docs/reference/visibility-modifiers.html) for more information.

```

enum class KVisibility {
    /**
     * Visibility of declarations marked with the `public` modifier, or with no modifier at all.
     */
    PUBLIC,
    /**
     * Visibility of declarations marked with the `protected` modifier.
     */
    PROTECTED,
    /**
     * Visibility of declarations marked with the `internal` modifier.
     */
    INTERNAL,
    /**
     * Visibility of declarations marked with the `private` modifier.
     */
    PRIVATE,
}

```

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OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

```

package kotlin
public object Unit {
    override fun toString() = "kotlin.Unit"
}
/* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.
@JsName("arrayIterator")
internal fun arrayIterator(array: dynamic, type: String?) = when (type) {
    null -> {
        val arr: Array<dynamic> = array
        object : Iterator<dynamic> {
            var index = 0
            override fun hasNext() = index < arr.size
            override fun next() = if (index < arr.size) arr[index++] else throw NoSuchElementException("$index")
        }
    }
    "BooleanArray" -> booleanArrayIterator(array)
    "ByteArray" -> byteArrayIterator(array)
    "ShortArray" -> shortArrayIterator(array)
    "CharArray" -> charArrayIterator(array)
    "IntArray" -> intArrayIterator(array)
    "LongArray" -> longArrayIterator(array)
    "FloatArray" -> floatArrayIterator(array)
    "DoubleArray" -> doubleArrayIterator(array)
    else -> throw IllegalStateException("Unsupported type argument for arrayIterator: $type")
}
@JsName("booleanArrayIterator")
internal fun booleanArrayIterator(array: BooleanArray) = object : BooleanIterator() {
    var index = 0
    override fun hasNext() = index < array.size
    override fun nextBoolean() = if (index < array.size) array[index++] else throw NoSuchElementException("$index")
}
@JsName("byteArrayIterator")
internal fun byteArrayIterator(array: ByteArray) = object : ByteIterator() {
    var index = 0
    override fun hasNext() = index < array.size
    override fun nextByte() = if (index < array.size) array[index++] else throw NoSuchElementException("$index")
}
@JsName("shortArrayIterator")
internal fun shortArrayIterator(array: ShortArray) = object : ShortIterator() {
    var index = 0
    override fun hasNext() = index < array.size
    override fun nextShort() = if (index < array.size) array[index++] else throw NoSuchElementException("$index")
}
@JsName("charArrayIterator")
internal fun charArrayIterator(array: CharArray) = object : CharIterator() {
    var index = 0
    override fun hasNext() = index < array.size
    override fun nextChar() = if (index < array.size) array[index++] else throw NoSuchElementException("$index")
}
@JsName("intArrayIterator")
internal fun intArrayIterator(array: IntArray) = object : IntIterator() {
    var index = 0
    override fun hasNext() = index < array.size
    override fun nextInt() = if (index < array.size) array[index++] else throw NoSuchElementException("$index")
}
@JsName("floatArrayIterator")
internal fun floatArrayIterator(array: FloatArray) = object : FloatIterator() {
    var index = 0
    override fun hasNext() = index < array.size
    override fun nextFloat() = if (index < array.size) array[index++] else throw NoSuchElementException("$index")
}
@JsName("doubleArrayIterator")
internal fun doubleArrayIterator(array: DoubleArray) = object : DoubleIterator() {
    var index = 0
    override fun hasNext() = index < array.size
    override fun nextDouble() = if (index < array.size) array[index++] else throw NoSuchElementException("$index")
}
@JsName("longArrayIterator")
internal fun longArrayIterator(array: LongArray) = object : LongIterator() {
    var index = 0
    override fun hasNext() = index < array.size
    override fun nextLong() = if (index < array.size) array[index++] else throw NoSuchElementException("$index")
}
@JsName("PropertyMetadata")
internal class PropertyMetadata(@JsName("callableName") val name: String)
@JsName("noWhenBranchMatched")
internal fun noWhenBranchMatched(): Nothing = throw NoWhenBranchMatchedException()
@JsName("subSequence")
internal fun subSequence(c: CharSequence, startIndex: Int, endIndex: Int): CharSequence {
    if (c is String) return c.substring(startIndex, endIndex)
    else {
        return c.asDynamic().`subSequence_vux9f0$(startIndex, endIndex)`
    }
}
@JsName("captureStack")
internal fun captureStack(baseClass: JsClass<in Throwable>, instance: Throwable) {
    if (js("Error").captureStackTrace) {
        js("Error").captureStackTrace(instance, instance::class.js)
    } else {
        instance.asDynamic().stack = js("new Error()").stack
    }
}
@JsName("newThrowable")
internal fun newThrowable(message:

```

```

String?, cause: Throwable?): Throwable {
    val throwable = js("new Error()")
    throwable.message = if (jsTypeOf(message) == "undefined") {
        if (cause != null) cause.toString() else null
    } else {
        message
    }
    throwable.cause = cause
    throwable.name = "Throwable"
    return throwable
}

@JsName("BoxedChar")
internal class BoxedChar(val c: Int) : Comparable<Int> {
    override fun equals(other: Any?): Boolean {
        return other is BoxedChar && c == other.c
    }
    override fun hashCode(): Int {
        return c
    }
    override fun toString(): String {
        return js("this.c").unsafeCast<Char>().toString()
    }
    override fun compareTo(other: Int): Int {
        return js("this.c - other").unsafeCast<Int>()
    }
}

@JsName("valueOf")
public fun valueOf(): Int {
    return c
}

@kotlin.internal.InlineOnly
internal inline fun <T> concat(args: Array<T>): T {
    val typed = js("Array")(args.size)
    for (i in args.indices) {
        val arr = args[i]
        if (arr !is Array<*>) {
            typed[i] = js("[]").slice.call(arr)
        } else {
            typed[i] = arr
        }
    }
    return js("[]").concat.apply(js("[]"), typed)
}

/** Concat regular Array's and TypedArray's into an Array.
 *
 * @PublishedApi
 * @JsName("arrayConcat")
 * @Suppress("UNUSED_PARAMETER")
 * internal fun <T> arrayConcat(a: T, b: T): T {
 *     return concat(js("arguments"))
 * }
 *
 * /** Concat primitive arrays. Main use: prepare vararg arguments.
 *
 * * For compatibility with 1.1.0 the arguments may be a mixture of Array's and TypedArray's.
 *
 * * If the first argument is TypedArray (Byte-, Short-, Char-, Int-, Float-, and DoubleArray) returns a TypedArray, otherwise an Array.
 *
 * * If the first argument has the $type$ property (Boolean-, Char-, and LongArray) copy its value to result.$type$.
 *
 * * If the first argument is a regular Array without the $type$ property default to arrayConcat.
 *
 *
 * @PublishedApi
 * @JsName("primitiveArrayConcat")
 * @Suppress("UNUSED_PARAMETER")
 * internal fun <T> primitiveArrayConcat(a: T, b: T): T {
 *     val args: Array<T> = js("arguments")
 *     if (a is Array<*> && a.asDynamic().`$type$` === undefined) {
 *         return concat(args)
 *     } else {
 *         var size = 0
 *         for (i in args.indices) {
 *             size += args[i].asDynamic().length as Int
 *         }
 *         val result = js("new a.constructor(size)")
 *         kotlin.copyArrayType(a, result)
 *         size = 0
 *         for (i in args.indices) {
 *             val arr = args[i].asDynamic()
 *             for (j in 0 until arr.length) {
 *                 result[size++] = arr[j]
 *             }
 *         }
 *         return result
 *     }
 * }
 *
 * @JsName("booleanArrayOf")
 * internal fun booleanArrayOf() = withType("BooleanArray", js("[]").slice.call(arguments))
 *
 * @JsName("charArrayOf")
 * // The arguments have to be slice'd here because of Rhino (see KT-16974)
 * internal fun charArrayOf() = withType("CharArray", js("new Uint16Array([]).slice.call(arguments)"))
 *
 * @JsName("longArrayOf")
 * internal fun longArrayOf() = withType("LongArray", js("[]").slice.call(arguments))
 *
 * @JsName("withType")
 * @kotlin.internal.InlineOnly
 * internal inline fun withType(type: String, array: dynamic): dynamic {
 *     array.`$type$` = type
 *     return array
 * }

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package kotlin.js

/** Function corresponding to JavaScript's `typeof` operator
 *
 * @kotlin.internal.InlineOnly
 * @Suppress("UNUSED_PARAMETER")
 * public inline fun jsTypeOf(a: Any?): String = js("typeof a")

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@file:Suppress("UNUSED_PARAMETER", "NOTHING_TO_INLINE")
package kotlin

/** Returns an empty array of the specified type [T].
 *
 * @public inline fun <T> emptyArray(): Array<T> = js("[]")
 *
 * @library
 * @public fun <T> arrayOf(vararg elements: T): Array<T> = definedExternally
 *
 * @library
 * @public fun doubleArrayOf(vararg elements: Double): DoubleArray = definedExternally
 *
 * @library
 * @public fun floatArrayOf(vararg elements: Float): FloatArray = definedExternally
 *
 * @library
 * @public fun longArrayOf(vararg elements: Long): LongArray = definedExternally
 *
 * @library
 * @public fun intArrayOf(vararg elements: Int): IntArray = definedExternally
 *
 * @library
 * @public fun charArrayOf(vararg elements: Char): CharArray = definedExternally
 *
 * @library
 * @public fun shortArrayOf(vararg elements: Short): ShortArray =

```



```

intercepted !== this) {\r\n        context[ContinuationInterceptor]!!.releaseInterceptedContinuation(intercepted)\r\n
    }\r\n    this.intercepted_ = CompletedContinuation // just in case\r\n    }\r\n\r\n    protected abstract fun
doResume(): Any?\r\n}\r\n\r\ninternal object CompletedContinuation : Continuation<Any?> {\r\n    override val
context: CoroutineContext\r\n        get() = error("This continuation is already complete")\r\n\r\n    override fun
resumeWith(result: Result<Any?>) {\r\n        error("This continuation is already complete")\r\n    }\r\n\r\n
override fun toString(): String = "This continuation is already complete"\r\n}\r\n\r\n    /*\r\n    * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n    * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n
\r\n    *\r\n    *\r\n    @file:Suppress("UNCHECKED_CAST", "RedundantVisibilityModifier")\r\n\r\n\r\npackage
kotlin\r\n\r\n\r\nimport kotlin.contracts.*\r\nimport kotlin.internal.InlineOnly\r\nimport
kotlin.jvm.JvmField\r\n\r\n\r\n/**\r\n * A discriminated union that encapsulates successful outcome with a value of
type [T]\r\n * or a failure with an arbitrary [Throwable] exception.\r\n
\r\n    *\r\n    *\r\n    @Suppress("NON_PUBLIC_PRIMARY_CONSTRUCTOR_OF_INLINE_CLASS")\r\n    @SinceKotlin("1.3")
\r\n    public inline class Result<out T> @PublishedApi internal constructor(\r\n        @PublishedApi\r\n        internal val
value: Any?\r\n    ) : Serializable {\r\n        // discovery\r\n\r\n        /**\r\n         * Returns `true` if this instance represents
successful outcome.\r\n         * In this case [isFailure] returns `false`.\r\n         *\r\n         * public val isSuccess: Boolean get()
= value !is Failure\r\n\r\n         /**\r\n         * Returns `true` if this instance represents failed outcome.\r\n         * In this case
[isSuccess] returns `false`.\r\n         *\r\n         * public val isFailure: Boolean get() = value is Failure\r\n\r\n         // value &
exception retrieval\r\n\r\n         /**\r\n         * Returns the encapsulated value if this instance represents
[success][Result.isSuccess] or `null`\r\n         * if it is [failure][Result.isFailure].\r\n         *\r\n         * This function is
shorthand for `getOrElse { null }` (see [getOrElse]) or\r\n         * `fold(onSuccess = { it }, onFailure = { null })` (see
[fold]).\r\n         *\r\n         * @InlineOnly\r\n         * public inline fun getOrNull(): T? =\r\n         *     when {\r\n         *         isFailure ->
null\r\n         *         else -> value as T\r\n         *     }\r\n\r\n         /**\r\n         * Returns the encapsulated exception if this instance
represents [failure][isFailure] or `null`\r\n         * if it is [success][isSuccess].\r\n         *\r\n         * This function is shorthand
for `fold(onSuccess = { null }, onFailure = { it })` (see [fold]).\r\n         *\r\n         * public fun exceptionOrNull():
Throwable? =\r\n         *     when (value) {\r\n         *         is Failure -> value.exception\r\n         *         else -> null\r\n         *     }\r\n\r\n
         /**\r\n         * Returns a string `Success(v)` if this instance represents [success][Result.isSuccess]\r\n         * where `v` is
a string representation of the value or a string `Failure(x)` if\r\n         * it is [failure][isFailure] where `x` is a string
representation of the exception.\r\n         *\r\n         * public override fun toString(): String =\r\n         *     when (value) {\r\n         *         is Failure -> value.toString() // "Failure($exception)"
\r\n         *         else -> "Success($value)"\r\n         *     }\r\n\r\n         //
companion with constructors\r\n\r\n         /**\r\n         * Companion object for [Result] class that contains its constructor
functions\r\n         * [success] and [failure].\r\n         *\r\n         * @InlineOnly\r\n         * public companion object {\r\n         *         /**\r\n         *         * Returns an
instance that encapsulates the given [value] as successful value.\r\n         *         *\r\n         *         @InlineOnly\r\n         *         * public
inline fun <T> success(value: T): Result<T> =\r\n         *             Result(value)\r\n         *         /**\r\n         *         * Returns an instance
that encapsulates the given [exception] as failure.\r\n         *         *\r\n         *         @InlineOnly\r\n         *         * public inline fun <T>
failure(exception: Throwable): Result<T> =\r\n         *             Result(createFailure(exception))\r\n         *     }\r\n\r\n         internal
class Failure(\r\n             @JvmField\r\n             val exception: Throwable\r\n         ) : Serializable {\r\n             override fun
equals(other: Any?): Boolean = other is Failure && exception == other.exception\r\n             override fun hashCode():
Int = exception.hashCode()\r\n             override fun toString(): String = "Failure($exception)"\r\n         }\r\n\r\n         /**\r\n         * Creates an instance of internal marker [Result.Failure] class to\r\n         * make sure that this class is
not exposed in ABI.\r\n         *\r\n         * @PublishedApi\r\n         * @SinceKotlin("1.3")\r\n         * internal fun createFailure(exception:
Throwable): Any =\r\n         *     Result.Failure(exception)\r\n\r\n         /**\r\n         * Throws exception if the result is failure. This
internal function minimizes\r\n         * inlined bytecode for [getOrThrow] and makes sure that in the future we can\r\n         * add some exception-augmenting logic here (if needed).\r\n
\r\n         *\r\n         * @PublishedApi\r\n         * @SinceKotlin("1.3")\r\n         * internal fun Result<*>.throwOnFailure() {\r\n         *     if (value is
Result.Failure) throw value.exception\r\n         * }\r\n\r\n         /**\r\n         * Calls the specified function [block] and returns its
encapsulated result if invocation was successful,\r\n         * catching and encapsulating any thrown exception as a
failure.\r\n         *\r\n         * @InlineOnly\r\n         * @SinceKotlin("1.3")\r\n         * public inline fun <R> runCatching(block: () -> R):

```

```

Result<R> {
    return try {
        Result.success(block())
    } catch (e: Throwable) {
        Result.failure(e)
    }
}

* Calls the specified function [block] with `this` value as its receiver and
returns its encapsulated result * if invocation was successful, catching and encapsulating any thrown exception
as a failure.

@InlineOnly
@SinceKotlin("1.3")
public inline fun <T, R> T.runCatching(block: T.() -
> R): Result<R> {
    return try {
        Result.success(block())
    } catch (e: Throwable) {
        Result.failure(e)
    }
}

// -- extensions ---

* Returns the encapsulated value if this instance
represents [success][Result.isSuccess] or throws the encapsulated exception * if it is
[failure][Result.isFailure].

* This function is shorthand for `getOrElse { throw it }` (see [getOrElse]).

@InlineOnly
@SinceKotlin("1.3")
public inline fun <T> Result<T>.getOrThrow(): T {
    throwOnFailure()
}

return value as T

* Returns the encapsulated value if this instance
represents [success][Result.isSuccess] or the * result of [onFailure] function for encapsulated exception if it is
[failure][Result.isFailure].

* Note, that an exception thrown by [onFailure] function is rethrown by this
function.

* This function is shorthand for `fold(onSuccess = { it }, onFailure = onFailure)` (see [fold]).

@InlineOnly
@SinceKotlin("1.3")
public inline fun <R, T : R> Result<T>.getOrElse(onFailure:
(exception: Throwable) -> R): R {
    contract {
        callsInPlace(onFailure,
InvocationKind.AT_MOST_ONCE)
    }

    return when (val exception = exceptionOrNull()) {
        null ->
value as T
        else -> onFailure(exception)
    }
}

* Returns the encapsulated value if this
instance represents [success][Result.isSuccess] or the * [defaultValue] if it is [failure][Result.isFailure].

* This function is shorthand for `getOrElse { defaultValue }` (see [getOrElse]).

@InlineOnly
@SinceKotlin("1.3")
public inline fun <R, T : R> Result<T>.getOrDefault(defaultValue:
R): R {
    if (isFailure) return defaultValue
}

return value as T

* Returns the the result of
[onSuccess] for encapsulated value if this instance represents [success][Result.isSuccess] * or the result of
[onFailure] function for encapsulated exception if it is [failure][Result.isFailure].

* Note, that an exception
thrown by [onSuccess] or by [onFailure] function is rethrown by this function.

@InlineOnly
@SinceKotlin("1.3")
public inline fun <R, T> Result<T>.fold(
onSuccess: (value: T)
-> R,
onFailure: (exception: Throwable) -> R): R {
    contract {
        callsInPlace(onSuccess,
InvocationKind.AT_MOST_ONCE)
        callsInPlace(onFailure, InvocationKind.AT_MOST_ONCE)
    }

    return when (val exception = exceptionOrNull()) {
        null -> onSuccess(value as T)
        else ->
onFailure(exception)
    }
}

// transformation

* Returns the encapsulated result of the given
[transform] function applied to encapsulated value * if this instance represents [success][Result.isSuccess] or
the * original encapsulated exception if it is [failure][Result.isFailure].

* Note, that an exception thrown
by [transform] function is rethrown by this function.

* See [mapCatching] for an alternative that encapsulates
exceptions.

@InlineOnly
@SinceKotlin("1.3")
public inline fun <R, T> Result<T>.map(transform:
(value: T) -> R): Result<R> {
    contract {
        callsInPlace(transform,
InvocationKind.AT_MOST_ONCE)
    }

    return when {
        isSuccess -> Result.success(transform(value
as T))
        else -> Result(value)
    }
}

* Returns the encapsulated result of the given
[transform] function applied to encapsulated value * if this instance represents [success][Result.isSuccess] or
the * original encapsulated exception if it is [failure][Result.isFailure].

* Any exception thrown by
[transform] function is caught, encapsulated as a failure and returned by this function.

* See [map] for an
alternative that rethrows exceptions.

@InlineOnly
@SinceKotlin("1.3")
public inline fun <R, T>
Result<T>.mapCatching(transform: (value: T) -> R): Result<R> {
    return when {
        isSuccess ->
runCatching { transform(value as T) }
        else -> Result(value)
    }
}

* Returns the
encapsulated result of the given [transform] function applied to encapsulated exception * if this instance
represents [failure][Result.isFailure] or the * original encapsulated value if it is [success][Result.isSuccess].

* Note, that an exception thrown by [transform] function is rethrown by this function.

* See
[recoverCatching] for an alternative that encapsulates exceptions.

@InlineOnly
@SinceKotlin("1.3")
public inline fun <R, T : R> Result<T>.recover(transform:
(exception: Throwable) -> R): Result<R> {
    contract {
        callsInPlace(transform,

```



```

*@\r\n@SinceKotlin("1.3")\r\n@Suppress("UNCHECKED_CAST")\r\npublic fun <T> (suspend () ->
T).createCoroutine(\r\n completion: Continuation<T>\r\n): Continuation<Unit> =\r\n
SafeContinuation(createCoroutineUnintercepted(completion).intercepted(),
COROUTINE_SUSPENDED)\r\n\r\n/**\r\n * Creates a coroutine with receiver type [R] and result type [T].\r\n *
This function creates a new, fresh instance of suspendable computation every time it is invoked.\r\n * \r\n * To start
executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance.\r\n * The
[completion] continuation is invoked when the coroutine completes with a result or an exception.\r\n * Subsequent
invocation of any resume function on the resulting continuation will produce an [IllegalStateException].\r\n
*\r\n@SinceKotlin("1.3")\r\n@Suppress("UNCHECKED_CAST")\r\npublic fun <R, T> (suspend R.() ->
T).createCoroutine(\r\n receiver: R,\r\n completion: Continuation<T>\r\n): Continuation<Unit> =\r\n
SafeContinuation(createCoroutineUnintercepted(receiver, completion).intercepted(),
COROUTINE_SUSPENDED)\r\n\r\n/**\r\n * Starts a coroutine without a receiver and with result type [T].\r\n *
This function creates and starts a new, fresh instance of suspendable computation every time it is invoked.\r\n * The
[completion] continuation is invoked when the coroutine completes with a result or an exception.\r\n
*\r\n@SinceKotlin("1.3")\r\n@Suppress("UNCHECKED_CAST")\r\npublic fun <T> (suspend () ->
T).startCoroutine(\r\n completion: Continuation<T>\r\n) {\r\n
createCoroutineUnintercepted(completion).intercepted().resume(Unit)\r\n}\r\n\r\n/**\r\n * Starts a coroutine with
receiver type [R] and result type [T].\r\n * This function creates and starts a new, fresh instance of suspendable
computation every time it is invoked.\r\n * The [completion] continuation is invoked when the coroutine completes
with a result or an exception.\r\n
*\r\n@SinceKotlin("1.3")\r\n@Suppress("UNCHECKED_CAST")\r\npublic
fun <R, T> (suspend R.() -> T).startCoroutine(\r\n receiver: R,\r\n completion: Continuation<T>\r\n) {\r\n
createCoroutineUnintercepted(receiver, completion).intercepted().resume(Unit)\r\n}\r\n\r\n\r\n/**\r\n * Obtains the
current continuation instance inside suspend functions and suspends\r\n * the currently running coroutine.\r\n * \r\n *
In this function both [Continuation.resume] and [Continuation.resumeWithException] can be used either
synchronously in\r\n * the same stack-frame where the suspension function is run or asynchronously later in the
same thread or\r\n * from a different thread of execution. Subsequent invocation of any resume function will
produce an [IllegalStateException].\r\n
*\r\n@SinceKotlin("1.3")\r\n@InlineOnly\r\npublic suspend inline fun
<T> suspendCoroutine(crossinline block: (Continuation<T>) -> Unit): T =\r\n
suspendCoroutineUninterceptedOrReturn { c: Continuation<T> ->\r\n val safe =
SafeContinuation(c.intercepted())\r\n block(safe)\r\n safe.getOrThrow()\r\n }\r\n\r\n\r\n/**\r\n * Returns the
context of the current coroutine.\r\n
*\r\n@SinceKotlin("1.3")\r\n@Suppress("WRONG_MODIFIER_TARGET")\r\n@InlineOnly\r\npublic suspend
inline val coroutineContext: CoroutineContext\r\n get() {\r\n throw NotImplementedError("Implemented as
intrinsic")\r\n }\r\n\r\n\r\n/**\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\r\n
*\r\n\r\n\r\npackage kotlin.coroutines.intrinsics\r\n\r\nimport
kotlin.coroutines.*\r\nimport kotlin.internal.InlineOnly\r\n\r\n\r\n/**\r\n * Starts an unintercepted coroutine without a
receiver and with result type [T] and executes it until its first suspension.\r\n * Returns the result of the coroutine or
throws its exception if it does not suspend or [COROUTINE_SUSPENDED] if it suspends.\r\n * In the latter case,
the [completion] continuation is invoked when the coroutine completes with a result or an exception.\r\n * \r\n *
The coroutine is started directly in the invoker's thread without going through the [ContinuationInterceptor] that
might\r\n * be present in the completion's [CoroutineContext]. It is the invoker's responsibility to ensure that a
proper invocation\r\n * context is established.\r\n * \r\n * This function is designed to be used from inside of
[suspendCoroutineUninterceptedOrReturn] to resume the execution of the suspended\r\n * coroutine using a
reference to the suspending function.\r\n
*\r\n@SinceKotlin("1.3")\r\n@InlineOnly\r\npublic actual inline fun
<T> (suspend () -> T).startCoroutineUninterceptedOrReturn(\r\n completion: Continuation<T>\r\n): Any? =
this.asDynamic()(completion, false)\r\n\r\n\r\n/**\r\n * Starts an unintercepted coroutine with receiver type [R] and
result type [T] and executes it until its first suspension.\r\n * Returns the result of the coroutine or throws its

```

exception if it does not suspend or [COROUTINE\_SUSPENDED] if it suspends. In the latter case, the [completion] continuation is invoked when the coroutine completes with a result or an exception. The coroutine is started directly in the invoker's thread without going through the [ContinuationInterceptor] that might be present in the completion's [CoroutineContext]. It is the invoker's responsibility to ensure that a proper invocation context is established. This function is designed to be used from inside of [suspendCoroutineUninterceptedOrReturn] to resume the execution of the suspended coroutine using a reference to the suspending function.

```

@SinceKotlin("1.3")@InlineOnly public actual inline fun <R, T> (suspend R.() -> T).startCoroutineUninterceptedOrReturn(
    receiver: R, completion: Continuation<T>) {
    Any? = this.asDynamic()(receiver, completion, false)
}

```

Creates unintercepted coroutine without receiver and with result type [T]. This function creates a new, fresh instance of suspendable computation every time it is invoked. To start executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance. The [completion] continuation is invoked when coroutine completes with result or exception. This function returns unintercepted continuation. Invocation of `resume(Unit)` starts coroutine immediately in the invoker's call stack without going through the [ContinuationInterceptor] that might be present in the completion's [CoroutineContext]. It is the invoker's responsibility to ensure that a proper invocation context is established. Note that [completion] of this function may get invoked in an arbitrary context. [Continuation.intercepted] can be used to acquire the intercepted continuation. Invocation of `resume(Unit)` on intercepted continuation guarantees that execution of both the coroutine and [completion] happens in the invocation context established by [ContinuationInterceptor]. Repeated invocation of any resume function on the resulting continuation corrupts the state machine of the coroutine and may result in arbitrary behaviour or exception.

```

@SinceKotlin("1.3") public actual fun <T> (suspend () -> T).createCoroutineUnintercepted(
    completion: Continuation<T>) {
    Continuation<Unit> = // Kotlin/JS suspend lambdas have an extra parameter `suspended` if (this.asDynamic().length == 2)
    { // When `suspended` is true the continuation is created, but not executed
    this.asDynamic()(completion, true) } else {
        createCoroutineFromSuspendFunction(completion) {
            this.asDynamic()(completion)
        }
}
}

```

Creates unintercepted coroutine with receiver type [R] and result type [T]. This function creates a new, fresh instance of suspendable computation every time it is invoked. To start executing the created coroutine, invoke `resume(Unit)` on the returned [Continuation] instance. The [completion] continuation is invoked when coroutine completes with result or exception. This function returns unintercepted continuation. Invocation of `resume(Unit)` starts coroutine immediately in the invoker's call stack without going through the [ContinuationInterceptor] that might be present in the completion's [CoroutineContext]. It is the invoker's responsibility to ensure that a proper invocation context is established. Note that [completion] of this function may get invoked in an arbitrary context. [Continuation.intercepted] can be used to acquire the intercepted continuation. Invocation of `resume(Unit)` on intercepted continuation guarantees that execution of both the coroutine and [completion] happens in the invocation context established by [ContinuationInterceptor]. Repeated invocation of any resume function on the resulting continuation corrupts the state machine of the coroutine and may result in arbitrary behaviour or exception.

```

@SinceKotlin("1.3") public actual fun <R, T> (suspend R.() -> T).createCoroutineUnintercepted(
    receiver: R, completion: Continuation<T>) {
    Continuation<Unit> = // Kotlin/JS suspend lambdas have an extra parameter `suspended` if
    (this.asDynamic().length == 3) { // When `suspended` is true the continuation is created, but not executed
        this.asDynamic()(receiver, completion, true) } else {
        createCoroutineFromSuspendFunction(completion) {
            this.asDynamic()(receiver, completion)
        }
}
}

```

Intercepts this continuation with [ContinuationInterceptor]. This function shall be used on the immediate result of [createCoroutineUnintercepted] or [suspendCoroutineUninterceptedOrReturn], in which case it checks for [ContinuationInterceptor] in the continuation's [context][Continuation.context], invokes [ContinuationInterceptor.interceptContinuation], caches and returns the result. If this function is invoked on other [Continuation] instances it returns `this` continuation unchanged.

```

*@\r\n@SinceKotlin("1.3")\r\npublic actual fun <T> Continuation<T>.intercepted(): Continuation<T> =\r\n (this
as? CoroutineImpl)?.intercepted() ?: this\r\n\r\n\r\nprivate inline fun <T> createCoroutineFromSuspendFunction(\r\n
completion: Continuation<T>,\r\n crossinline block: () -> Any?\r\n): Continuation<Unit> {\r\n
@Suppress("UNCHECKED_CAST")\r\n return object : CoroutineImpl(completion as Continuation<Any?>)\r\n
{\r\n override fun doResume(): Any? {\r\n exception?.let { throw it }\r\n return block()\r\n
}\r\n }\r\n}\r\n",/*\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.js\r\n\r\n// Mirrors signature from JS IR BE\r\n\r\nUsed for
js.translator/testData/box/number/mulInt32.kt\r\n@library\r\n@JsName("imulEmulated")\r\ninternal fun imul(x:
Int, y: Int): Int = definedExternally\r\n\r\ninternal inline fun isArrayish(o: dynamic) =
js("Kotlin").isArrayish(o),/*\r\n * Copyright 2010-2019 JetBrains s.r.o. Use of this source code is governed by
the Apache 2.0 license\r\n * that can be found in the license/LICENSE.txt file.\r\n
*\r\n\r\n@file:Suppress("UNUSED_PARAMETER")\r\n\r\npackage
kotlin.js\r\n\r\n@kotlin.internal.InlineOnly\r\ninternal inline fun jsDeleteProperty(obj: Any, property: Any) {\r\n
js("delete obj[property]")\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\ninternal inline fun jsBitwiseOr(lhs: Any?, rhs:
Any?): Int =\r\n js("lhs | rhs").unsafeCast<Int>()),/*\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.math\r\n\r\n/**\r\n * Returns this value with the sign
bit same as of the [sign] value.\r\n * If [sign] is `NaN` the sign of the result is undefined.\r\n
*\r\n\r\n@SinceKotlin("1.2")\r\npublic actual fun Double.withSign(sign: Double): Double {\r\n val thisSignBit =
js("Kotlin").doubleSignBit(this).unsafeCast<Int>()\r\n val newSignBit =
js("Kotlin").doubleSignBit(sign).unsafeCast<Int>()\r\n return if (thisSignBit == newSignBit) this else -
this\r\n}},/*\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use
of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n
*\r\n\r\npackage kotlin\r\n\r\n\r\n/**\r\n * Returns a bit representation of the specified floating-point value as
[Long]\r\n * according to the IEEE 754 floating-point "double format" bit layout.\r\n
*\r\n\r\n@SinceKotlin("1.2")\r\n@library("doubleToBits")\r\npublic actual fun Double.toBits(): Long =
definedExternally\r\n\r\n\r\n/**\r\n * Returns a bit representation of the specified floating-point value as [Long]\r\n *
according to the IEEE 754 floating-point "double format" bit layout,\r\n * preserving `NaN` values exact
layout.\r\n */\r\n\r\n@SinceKotlin("1.2")\r\n@library("doubleToRawBits")\r\npublic actual fun Double.toRawBits():
Long = definedExternally\r\n\r\n\r\n/**\r\n * Returns the [Double] value corresponding to a given bit representation.\r\n
*\r\n\r\n@SinceKotlin("1.2")\r\n@kotlin.internal.InlineOnly\r\npublic actual inline fun
Double.Companion.fromBits(bits: Long): Double =
js("Kotlin").doubleFromBits(bits).unsafeCast<Double>()\r\n\r\n\r\n/**\r\n * Returns a bit representation of the
specified floating-point value as [Int]\r\n * according to the IEEE 754 floating-point "single format" bit layout.\r\n
*\r\n * Note that in Kotlin/JS [Float] range is wider than "single format" bit layout can represent,\r\n * so some
[Float] values may overflow, underflow or lose their accuracy after conversion to bits and back.\r\n
*\r\n\r\n@SinceKotlin("1.2")\r\n@library("floatToBits")\r\npublic actual fun Float.toBits(): Int =
definedExternally\r\n\r\n\r\n/**\r\n * Returns a bit representation of the specified floating-point value as [Int]\r\n *
according to the IEEE 754 floating-point "single format" bit layout,\r\n * preserving `NaN` values exact layout.\r\n
*\r\n * Note that in Kotlin/JS [Float] range is wider than "single format" bit layout can represent,\r\n * so some
[Float] values may overflow, underflow or lose their accuracy after conversion to bits and back.\r\n
*\r\n\r\n@SinceKotlin("1.2")\r\n@library("floatToRawBits")\r\npublic actual fun Float.toRawBits(): Int =
definedExternally\r\n\r\n\r\n/**\r\n * Returns the [Float] value corresponding to a given bit representation.\r\n
*\r\n\r\n@SinceKotlin("1.2")\r\n@kotlin.internal.InlineOnly\r\npublic actual inline fun
Float.Companion.fromBits(bits: Int): Float =
js("Kotlin").floatFromBits(bits).unsafeCast<Float>()\r\n\r\n\r\ninternal inline fun Long(low: Int, high: Int) =
js("Kotlin").Long.fromBits(low, high).unsafeCast<Long>()\r\n\r\ninternal inline val Long.low: Int get() =

```

```

this.asDynamic().getLowBits().unsafeCast<Int>()\r\ninternal inline val Long.high: Int get() =
this.asDynamic().getHighBits().unsafeCast<Int>()),"/**\r\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin
Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.text\r\n\r\n/**\r\n * Returns a string
representation of this [Long] value in the specified [radix].\r\n */\r\n * @throws IllegalArgumentException when
[radix] is not a valid radix for number to string conversion.\r\n */\r\n@SinceKotlin("1.2")\r\npublic actual fun
Long.toString(radix: Int): String = asDynamic().toString(checkRadix(radix)),"/**\r\n * Copyright 2010-2019
JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.collections\r\n\r\n/\n\nNOTE: THIS FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\r\n\r\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\r\n\r\nimport kotlin.js.*\r\nimport
kotlin.ranges.contains\r\nimport kotlin.ranges.reversed\r\n\r\n/**\r\n * Reverses elements in the list in-place.\r\n */\r\npublic
actual fun <T> MutableList<T>.reverse(): Unit {\r\n    val midPoint = (size / 2) - 1\r\n    if (midPoint < 0) return\r\n    var
reverseIndex = lastIndex\r\n    for (index in 0..midPoint) {\r\n        val tmp = this[index]\r\n        this[index] =
this[reverseIndex]\r\n        this[reverseIndex] = tmp\r\n        reverseIndex--\r\n    }\r\n}\r\n\r\n"/**\r\n * Copyright 2010-2019
JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.text\r\n\r\n/\n\nNOTE: THIS
FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\r\n\r\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\r\n\r\nimport kotlin.js.*\r\n\r\n/**\r\n * Returns a
character at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is out of bounds of this char
sequence.\r\n */\r\n * @sample samples.collections.Collections.Elements.elementAt\r\n */\r\npublic actual fun
CharSequence.elementAt(index: Int): Char {\r\n    return elementAtOrElse(index) { throw
IndexOutOfBoundsException("index: $index, length: $length") }\r\n}\r\n\r\n"/**\r\n * Copyright 2010-2019 JetBrains
s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.collections\r\n\r\n/\n\nNOTE: THIS
FILE IS AUTO-GENERATED by the GenerateStandardLib.kt\r\n\r\n// See:
https://github.com/JetBrains/kotlin/tree/master/libraries/stdlib\r\n\r\nimport kotlin.js.*\r\nimport
kotlin.ranges.contains\r\nimport kotlin.ranges.reversed\r\n\r\n/**\r\n * Returns an element at the given [index] or throws
an [IndexOutOfBoundsException] if the [index] is out of bounds of this array.\r\n */\r\n * @sample
samples.collections.Collections.Elements.elementAt\r\n\r\n*/\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\npublic actual fun UIntArray.elementAt(index: Int):
UInt {\r\n    return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size: $size") }\r\n}\r\n\r\n/**\r\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is
out of bounds of this array.\r\n */\r\n * @sample samples.collections.Collections.Elements.elementAt\r\n\r\n*/\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\npublic actual fun ULongArray.elementAt(index: Int):
ULong {\r\n    return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size: $size") }\r\n}\r\n\r\n/**\r\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is
out of bounds of this array.\r\n */\r\n * @sample samples.collections.Collections.Elements.elementAt\r\n\r\n*/\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\npublic actual fun UByteArray.elementAt(index: Int):
UByte {\r\n    return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size: $size") }\r\n}\r\n\r\n/**\r\n * Returns an element at the given [index] or throws an [IndexOutOfBoundsException] if the [index] is
out of bounds of this array.\r\n */\r\n * @sample samples.collections.Collections.Elements.elementAt\r\n\r\n*/\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\npublic actual fun UShortArray.elementAt(index: Int):
UShort {\r\n    return elementAtOrElse(index) { throw IndexOutOfBoundsException("index: $index, size: $size") }\r\n}\r\n\r\n/**\r\n * Returns a [List] that wraps the original array.\r\n\r\n*/\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\npublic actual fun UIntArray.asList(): List<UInt> {\r\n    return object : AbstractList<UInt>(), RandomAccess {\r\n        override val size: Int get() = this@asList.size\r\n        override fun isEmpty(): Boolean = this@asList.isEmpty()\r\n        override fun contains(element: UInt): Boolean =

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this@asList.contains(element)\n    override fun get(index: Int): UInt {\n
AbstractList.checkElementIndex(index, size)\n    return this@asList[index]\n    }\n    override fun
indexOf(element: UInt): Int {\n    if ((element as Any?) !is UInt) return -1\n    return
this@asList.indexOf(element)\n    }\n    override fun lastIndexOf(element: UInt): Int {\n    if ((element as
Any?) !is UInt) return -1\n    return this@asList.lastIndexOf(element)\n    }\n    }\n}\n\n/**\n * Returns a
[List] that wraps the original array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic actual fun
ULongArray.asList(): List<ULong> {\n    return object : AbstractList<ULong>(), RandomAccess {\n    override
val size: Int get() = this@asList.size\n    override fun isEmpty(): Boolean = this@asList.isEmpty()\n    override
fun contains(element: ULong): Boolean = this@asList.contains(element)\n    override fun get(index: Int): ULong
{\n    AbstractList.checkElementIndex(index, size)\n    return this@asList[index]\n    }\n    override
fun indexOf(element: ULong): Int {\n    if ((element as Any?) !is ULong) return -1\n    return
this@asList.indexOf(element)\n    }\n    override fun lastIndexOf(element: ULong): Int {\n    if ((element
as Any?) !is ULong) return -1\n    return this@asList.lastIndexOf(element)\n    }\n    }\n}\n\n/**\n * Returns
a [List] that wraps the original array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic actual
fun UByteArray.asList(): List<UByte> {\n    return object : AbstractList<UByte>(), RandomAccess {\n
override val size: Int get() = this@asList.size\n    override fun isEmpty(): Boolean = this@asList.isEmpty()\n
override fun contains(element: UByte): Boolean = this@asList.contains(element)\n    override fun get(index: Int):
UByte {\n    AbstractList.checkElementIndex(index, size)\n    return this@asList[index]\n    }\n    override
fun indexOf(element: UByte): Int {\n    if ((element as Any?) !is UByte) return -1\n    return
this@asList.indexOf(element)\n    }\n    override fun lastIndexOf(element: UByte): Int {\n    if ((element
as Any?) !is UByte) return -1\n    return this@asList.lastIndexOf(element)\n    }\n    }\n}\n\n/**\n * Returns
a [List] that wraps the original array.\n */\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic actual
fun UShortArray.asList(): List<UShort> {\n    return object : AbstractList<UShort>(), RandomAccess {\n
override val size: Int get() = this@asList.size\n    override fun isEmpty(): Boolean = this@asList.isEmpty()\n
override fun contains(element: UShort): Boolean = this@asList.contains(element)\n    override fun get(index:
Int): UShort {\n    AbstractList.checkElementIndex(index, size)\n    return this@asList[index]\n    }\n    override
fun indexOf(element: UShort): Int {\n    if ((element as Any?) !is UShort) return -1\n    return
this@asList.indexOf(element)\n    }\n    override fun lastIndexOf(element: UShort): Int {\n    if ((element
as Any?) !is UShort) return -1\n    return this@asList.lastIndexOf(element)\n    }\n    }\n}\n\n", "@file:
Suppress("DEPRECATION")\r\npackage jquery.ui\r\n\r\n\r\n/jquery UI\r\nimport jquery.JQuery\r\nimport
kotlin.js.Json\r\n\r\n@Deprecated("Use declarations from 'https://bintray.com/kotlin/js-externals/kotlin-js-jquery'
package instead.")\r\npublic inline fun JQuery.buttonset(): JQuery =
asDynamic().buttonset()\r\n\r\n@Deprecated("Use declarations from 'https://bintray.com/kotlin/js-externals/kotlin-
js-jquery' package instead.")\r\npublic inline fun JQuery.dialog(): JQuery =
asDynamic().dialog()\r\n\r\n@Deprecated("Use declarations from 'https://bintray.com/kotlin/js-externals/kotlin-js-
jquery' package instead.")\r\npublic inline fun JQuery.dialog(params: Json): JQuery =
asDynamic().dialog(params)\r\n\r\n@Deprecated("Use declarations from 'https://bintray.com/kotlin/js-
externals/kotlin-js-jquery' package instead.")\r\npublic inline fun JQuery.dialog(mode: String, param: String): Any?
= asDynamic().dialog(mode, param)\r\n\r\n@Deprecated("Use declarations from 'https://bintray.com/kotlin/js-
externals/kotlin-js-jquery' package instead.")\r\npublic inline fun JQuery.dialog(mode: String): JQuery =
asDynamic().dialog(mode)\r\n\r\n@Deprecated("Use declarations from 'https://bintray.com/kotlin/js-
externals/kotlin-js-jquery' package instead.")\r\npublic inline fun JQuery.dialog(mode: String, param: String, value:
Any?): JQuery = asDynamic().dialog(mode, param, value)\r\n\r\n@Deprecated("Use declarations from
'https://bintray.com/kotlin/js-externals/kotlin-js-jquery' package instead.")\r\npublic inline fun JQuery.button():
JQuery = asDynamic().button()\r\n\r\n@Deprecated("Use declarations from 'https://bintray.com/kotlin/js-
externals/kotlin-js-jquery' package instead.")\r\npublic inline fun JQuery.accordion(): JQuery =
asDynamic().accordion()\r\n\r\n@Deprecated("Use declarations from 'https://bintray.com/kotlin/js-externals/kotlin-
js-jquery' package instead.")\r\npublic inline fun JQuery.draggable(params: Json): JQuery =

```

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asDynamic().draggable(params)\r\n\r\n@Deprecated("\r\nUse declarations from 'https://bintray.com/kotlin/js-externals/kotlin-js-jquery' package instead.")\r\n\r\npublic inline fun JQuery.selectable(): JQuery =
asDynamic().selectable()\r\n\r\n"/*\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.js\r\n\r\nimport
kotlin.annotation.AnnotationTarget.*\r\n\r\n@Target(CLASS, FUNCTION, PROPERTY, CONSTRUCTOR,
VALUE_PARAMETER, PROPERTY_GETTER, PROPERTY_SETTER)\r\n@Deprecated("\r\nUse `external`
modifier instead", level = DeprecationLevel.ERROR)\r\n\r\npublic annotation class native(public val name: String =
"\r\n")\r\n\r\n@Target(FUNCTION)\r\n@Deprecated("\r\nUse inline extension function with body using
dynamic")\r\n\r\npublic annotation class nativeGetter\r\n\r\n@Target(FUNCTION)\r\n@Deprecated("\r\nUse inline
extension function with body using dynamic")\r\n\r\npublic annotation class
nativeSetter\r\n\r\n@Target(FUNCTION)\r\n@Deprecated("\r\nUse inline extension function with body using
dynamic")\r\n\r\npublic annotation class nativeInvoke\r\n\r\n@Target(CLASS, FUNCTION, PROPERTY)\r\n\r\ninternal
annotation class library(public val name: String = "\r\n")\r\n\r\n@Target(CLASS)\r\n\r\ninternal annotation class
marker\r\n\r\n\r\n/*\r\n * Gives a declaration (a function, a property or a class) specific name in JavaScript.\r\n *
This may be useful in the following cases:\r\n * * There are two functions for which the compiler gives same
name in JavaScript, you can\r\n *   mark one with `@JsName(...)` to prevent the compiler from reporting error.\r\n *
* * You are writing a JavaScript library in Kotlin. The compiler produces mangled names\r\n *   for functions
with parameters, which is unnatural for usual JavaScript developer.\r\n *   You can put `@JsName(...)` on
functions you want to be available from JavaScript.\r\n * * For some reason you want to rename declaration, e.g.
there's common term in JavaScript\r\n *   for a concept provided by the declaration, which is uncommon in
Kotlin.\r\n * * Example:\r\n * * ``` kotlin\r\n * * class Person(val name: String) {\r\n * *   fun hello() {\r\n * *
println("Hello $name!")\r\n * *   }\r\n * *   @JsName("helloWithGreeting")\r\n * *   fun hello(greeting:
String) {\r\n * *     println("$greeting $name!")\r\n * *   }\r\n * * }\r\n * * ```\r\n * * @property name the name
which compiler uses both for declaration itself and for all references to the declaration.\r\n *   It's required to
denote a valid JavaScript identifier.\r\n * */\r\n\r\n@Retention(AnnotationRetention.BINARY)\r\n@Target(CLASS,
FUNCTION, PROPERTY, CONSTRUCTOR, PROPERTY_GETTER, PROPERTY_SETTER)\r\n\r\npublic actual
annotation class JsName(actual val name: String)\r\n\r\n/*\r\n * Denotes an `external` declaration that must be
imported from native JavaScript library.\r\n * * The compiler produces the code relevant for the target module
system, for example, in case of CommonJS,\r\n * * it will import the declaration via the `require(...)` function.\r\n *
*\r\n * * The annotation can be used on top-level external declarations (classes, properties, functions) and files.\r\n *
*\r\n * * In case of file (which can't be `external`) the following rule applies: all the declarations in\r\n * * the
file must be `external`. By applying `@JsModule(...)` on a file you tell the compiler to import a JavaScript object\r\n *
* that contain all the declarations from the file.\r\n * * Example:\r\n * * ``` kotlin\r\n * * @JsModule("jquery")\r\n *
*\r\n * * external abstract class JQuery() {\r\n * *   // some declarations here\r\n * * }\r\n * * @JsModule("jquery")\r\n *
*\r\n * * external fun JQuery(element: Element): JQuery\r\n * * ```\r\n * * @property import name of a module to import
declaration from.\r\n * *   It is not interpreted by the Kotlin compiler, it's passed as is directly to the target
module system.\r\n * * @see JsNonModule\r\n * */\r\n\r\n@Retention(AnnotationRetention.BINARY)\r\n@Target(CLASS, PROPERTY, FUNCTION, FILE)\r\n\r\npublic
annotation class JsModule(val import: String)\r\n\r\n/*\r\n * Denotes an `external` declaration that can be used
without module system.\r\n * * By default, an `external` declaration is available regardless your target module
system.\r\n * * However, by applying [JsModule] annotation you can make a declaration unavailable to *plain*
module system.\r\n * * Some JavaScript libraries are distributed both as a standalone downloadable piece of
JavaScript and as a module available\r\n * * as an npm package.\r\n * * To tell the Kotlin compiler to accept both
cases, you can augment [JsModule] with the `@JsNonModule` annotation.\r\n * * For example:\r\n * * ``` kotlin\r\n *
*\r\n * * @JsModule("jquery")\r\n * * @JsNonModule\r\n * * @JsName("$")\r\n * * external abstract class JQuery() {\r\n *
*\r\n * * // some declarations here\r\n * * }\r\n * * @JsModule("jquery")\r\n * * @JsNonModule\r\n * * @JsName("$")\r\n *
*\r\n * * external fun JQuery(element: Element): JQuery\r\n * * ```\r\n * * @see JsModule\r\n * */

```

\*`@Retention(AnnotationRetention.BINARY)``@Target(CLASS, PROPERTY, FUNCTION, FILE)``public`  
 annotation class `JsNonModule`  
 \* Adds prefix to `external` declarations in a source file.  
 \* JavaScript does not have concept of packages (namespaces). They are usually emulated by nested objects.  
 \* The compiler turns references to `external` declarations either to plain unprefix names (in case of `*plain*` modules)  
 \* or to plain imports.  
 \* However, if a JavaScript library provides its declarations in packages, you won't be satisfied with this.  
 \* You can tell the compiler to generate additional prefix before references to `external` declarations using the `@JsQualifier(...)` annotation.  
 \* Note that a file marked with the `@JsQualifier(...)` annotation can't contain non-`external` declarations.  
 \* Example:  
`@file:JsQualifier("my.jsPackageName")`  
`package some.kotlinPackage`  
`external fun foo(x: Int)`  
`external fun bar(): String`  
 \* Example: `@property value` the qualifier to add to the declarations in the generated code.  
 \* It must be a sequence of valid JavaScript identifiers separated by the ``.` character.

Examples of valid qualifiers are: ``foo``, ``bar.Baz``, ``_.$0.f``.  
`@see JsModule`

\*`@Retention(AnnotationRetention.BINARY)``@Target(AnnotationTarget.FILE)``public` annotation class  
`JsQualifier`(val value: String)  
 \* Exports top-level declaration.  
 \* Used in future IR-based backend.  
 \* Has no effect in current JS backend.

\*`@Retention(AnnotationRetention.BINARY)``@Target(CLASS, PROPERTY, FUNCTION, FILE)``public`  
 annotation class `JsExport`  
 \* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.  
 \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.  
`@r\npackage kotlin.jvm`  
`// these are used in common generated code in stdlib`  
`// TODO: find how to deprecate these`

`@Target(AnnotationTarget.FIELD)``@Retention(AnnotationRetention.SOURCE)``public` actual  
 annotation class `Volatile`  
`@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY_GETTER, AnnotationTarget.PROPERTY_SETTER)``@Retention(AnnotationRetention.SOURCE)``public` actual  
 annotation class `Synchronized`  
 \* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.  
 \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.  
`@r\npackage kotlin.collections`  
 \* Provides a skeletal implementation of the `[MutableCollection]` interface.  
 \* `@param E` the type of elements contained in the collection. The collection is invariant on its element type.  
`public` actual abstract class `AbstractMutableCollection``<E>`  
 protected actual constructor(): `AbstractCollection``<E>`()`, MutableCollection``<E>` {  
 actual abstract override fun `add`(element: E): Boolean  
 actual override fun `remove`(element: E): Boolean {  
 val iterator = iterator()  
 while (iterator.hasNext()) {  
 if (iterator.next() == element) {  
 iterator.remove()  
 return true  
 }  
 }  
 return false  
 }  
 actual override fun `addAll`(elements: Collection`<E>`): Boolean {  
 var modified = false  
 for (element in elements) {  
 if (add(element)) modified = true  
 }  
 return modified  
 }  
 actual override fun `removeAll`(elements: Collection`<E>`): Boolean = (this as `MutableIterable``<E>`).removeAll { it in elements }  
 actual override fun `retainAll`(elements: Collection`<E>`): Boolean = (this as `MutableIterable``<E>`).removeAll { !it in elements }  
 actual override fun `clear`(): Unit {  
 val iterator = this.iterator()  
 while (iterator.hasNext()) {  
 iterator.next()  
 iterator.remove()  
 }  
 }

`@JsName("toJSON")` open fun `toJSON`(): Any = `this.toArray`()  
 \* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.  
 \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.  
 \* Based on GWT

`AbstractList`  
 \* Copyright 2007 Google Inc.  
`@r\npackage kotlin.collections`  
 \* Provides a skeletal implementation of the `[MutableList]` interface.  
 \* `@param E` the type of elements contained in the list. The list is invariant on its element type.  
`public` actual abstract class `AbstractMutableList``<E>` protected actual constructor(): `AbstractMutableCollection``<E>`()`, MutableList``<E>` {  
 protected var `modCount`: Int = 0  
 abstract override fun `add`(index: Int, element: E): Unit  
 abstract override fun `removeAt`(index: Int): E  
 abstract override fun `set`(index: Int, element: E): E  
 \* Adds the specified element to the end of this list.  
 \* `@return `true`` because the list is always modified as the result of this operation.

```

*/\r\n actual override fun add(element: E): Boolean {\r\n    add(size, element)\r\n    return true\r\n }\r\n\r\n
actual override fun addAll(index: Int, elements: Collection<E>): Boolean {\r\n    var _index = index\r\n    var
changed = false\r\n    for (e in elements) {\r\n        add(_index++, e)\r\n        changed = true\r\n    }\r\n
return changed\r\n }\r\n\r\n
actual override fun clear() {\r\n    removeRange(0, size)\r\n }\r\n\r\n
actual
override fun removeAll(elements: Collection<E>): Boolean = removeAll { it in elements }\r\n actual override fun
retainAll(elements: Collection<E>): Boolean = removeAll { it !in elements }\r\n\r\n
actual override fun
iterator(): MutableIterator<E> = IteratorImpl()\r\n\r\n
actual override fun contains(element: E): Boolean =
indexOf(element) >= 0\r\n\r\n
actual override fun indexOf(element: E): Int {\r\n    for (index in 0..lastIndex)
{\r\n        if (get(index) == element) {\r\n            return index\r\n        }\r\n    }\r\n    return -1\r\n
}\r\n\r\n
actual override fun lastIndexOf(element: E): Int {\r\n    for (index in lastIndex downTo 0) {\r\n
if (get(index) == element) {\r\n        return index\r\n    }\r\n    }\r\n    return -1\r\n }\r\n\r\n
actual
override fun listIterator(): MutableListIterator<E> = listIterator(0)\r\n actual override fun listIterator(index: Int):
MutableListIterator<E> = ListIteratorImpl(index)\r\n\r\n
actual override fun subList(fromIndex: Int, toIndex:
Int): MutableList<E> = SubList(this, fromIndex, toIndex)\r\n\r\n
/**\r\n * Removes the range of elements from
this list starting from [fromIndex] and ending with but not including [toIndex].\r\n */\r\n protected open fun
removeRange(fromIndex: Int, toIndex: Int) {\r\n    val iterator = listIterator(fromIndex)\r\n    repeat(toIndex -
fromIndex) {\r\n        iterator.next()\r\n        iterator.remove()\r\n    }\r\n }\r\n\r\n
/**\r\n * Compares
this list with another list instance with the ordered structural equality.\r\n */\r\n * @return true, if [other]
instance is a [List] of the same size, which contains the same elements in the same order.\r\n */\r\n override fun
equals(other: Any?): Boolean {\r\n    if (other == this) return true\r\n    if (other !is List<*>) return
false\r\n\r\n    return AbstractList.orderedEquals(this, other)\r\n }\r\n\r\n
/**\r\n * Returns the hash code
value for this list.\r\n */\r\n override fun hashCode(): Int = AbstractList.orderedHashCode(this)\r\n\r\n
private open inner class IteratorImpl : MutableIterator<E> {\r\n    /** the index of the item that will be returned
on the next call to [next]() */\r\n    protected var index = 0\r\n    /** the index of the item that was returned on
the previous call to [next]() or [ListIterator.previous]() (for `ListIterator`),\r\n    * -1 if no such item
exists\r\n    */\r\n    protected var last = -1\r\n\r\n
override fun hasNext(): Boolean = index < size\r\n\r\n
override fun next(): E {\r\n    if (!hasNext()) throw NoSuchElementException()\r\n    last = index++\r\n    return
get(last)\r\n }\r\n\r\n
override fun remove() {\r\n    check(last != -1) { "\"Call next() or
previous() before removing element from the iterator.\" }\r\n\r\n    removeAt(last)\r\n    index = last\r\n
last = -1\r\n }\r\n }\r\n\r\n
/**\r\n * Implementation of `MutableListIterator` for abstract lists.\r\n
*/\r\n private inner class ListIteratorImpl(index: Int) : IteratorImpl(), MutableListIterator<E> {\r\n\r\n    init
{\r\n        AbstractList.checkPositionIndex(index, this@AbstractMutableList.size)\r\n        this.index = index\r\n
}\r\n\r\n
override fun hasPrevious(): Boolean = index > 0\r\n\r\n
override fun nextIndex(): Int =
index\r\n\r\n
override fun previous(): E {\r\n    if (!hasPrevious()) throw NoSuchElementException()\r\n\r\n    last = --index\r\n    return get(last)\r\n }\r\n\r\n
override fun previousIndex(): Int = index -
1\r\n\r\n
override fun add(element: E) {\r\n    add(index, element)\r\n    index++\r\n    last = -1\r\n
}\r\n\r\n
override fun set(element: E) {\r\n    check(last != -1) { "\"Call next() or previous() before
updating element value with the iterator.\" }\r\n    this@AbstractMutableList[last] = element\r\n }\r\n
}\r\n\r\n
private class SubList<E>(private val list: AbstractMutableList<E>, private val fromIndex: Int, toIndex:
Int) : AbstractMutableList<E>(), RandomAccess {\r\n    private var _size: Int = 0\r\n\r\n    init {\r\n
AbstractList.checkRangeIndexes(fromIndex, toIndex, list.size)\r\n    this._size = toIndex - fromIndex\r\n
}\r\n\r\n
override fun add(index: Int, element: E) {\r\n    AbstractList.checkPositionIndex(index,
_size)\r\n    list.add(fromIndex + index, element)\r\n    _size++\r\n }\r\n\r\n
override fun
get(index: Int): E {\r\n    AbstractList.checkElementIndex(index, _size)\r\n    return list[fromIndex +
index]\r\n }\r\n\r\n
override fun removeAt(index: Int): E {\r\n
AbstractList.checkElementIndex(index, _size)\r\n    val result = list.removeAt(fromIndex + index)\r\n
_size--\r\n    return result\r\n }\r\n\r\n
override fun set(index: Int, element: E): E {\r\n
AbstractList.checkElementIndex(index, _size)\r\n    return list.set(fromIndex + index, element)\r\n
}

```

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}

override val size: Int get() = _size
}

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 that can be found in the license/LICENSE.txt file.
 */
 * Based on GWT AbstractMap
 * Copyright
 2007 Google Inc.
 */
package kotlin.collections

/**
 * Provides a skeletal implementation of the
 [MutableMap] interface.
 * The implementor is required to implement [entries] property, which should
 return mutable set of map entries, and [put] function.
 * @param K the type of map keys. The map is
 invariant on its key type.
 * @param V the type of map values. The map is invariant on its value type.
 */
public actual abstract class AbstractMutableMap<K, V> protected actual constructor() : AbstractMap<K, V>(),
 MutableMap<K, V> {

 /**
 * A mutable [Map.Entry] shared by several [Map] implementations.
 */
 internal open class SimpleEntry<K, V>(override val key: K, value: V) : MutableMap.MutableEntry<K, V> {

 constructor(entry: Map.Entry<K, V>) : this(entry.key, entry.value)
 private var _value =
 value

 override val value: V get() = _value

 override fun setValue(new Value: V): V {
 val oldValue = this._value
 this._value = new Value
 return oldValue
 }

 override fun hashCode(): Int = entryHashCode(this)
 override fun toString(): String = entryToString(this)

 override fun equals(other: Any?): Boolean = entryEquals(this, other)
 }

 actual override fun
 clear() {
 entries.clear()
 }

 private var _keys: MutableSet<K>? = null
 actual override val
 keys: MutableSet<K> get() {
 if (_keys == null) {
 _keys = object :
 AbstractMutableSet<K>() {
 override fun add(element: K): Boolean = throw
 UnsupportedOperationException("Add is not supported on keys")
 }

 override fun clear() {
 this@AbstractMutableMap.clear()
 }

 override operator fun contains(element:
 K): Boolean = containsKey(element)

 override operator fun iterator(): MutableIterator<K> {
 val entryIterator = entries.iterator()
 return object : MutableIterator<K> {

 override fun hasNext(): Boolean = entryIterator.hasNext()
 override fun next(): K =
 entryIterator.next().key
 }

 override fun remove() = entryIterator.remove()
 }

 override fun remove(element: K): Boolean {
 if
 (containsKey(element)) {
 this@AbstractMutableMap.remove(element)
 }

 return true
 }

 return false
 }

 override val size:
 Int get() = this@AbstractMutableMap.size
 }

 return _keys!!
 }

 actual abstract override fun put(key: K, value: V): V? {
 actual override fun putAll(from: Map<out K, V>)
 {
 for ((key, value) in from) {
 put(key, value)
 }
 }

 private var _values:
 MutableCollection<V>? = null
 actual override val values: MutableCollection<V> get() {
 if
 (_values == null) {
 _values = object : AbstractMutableCollection<V>() {
 override fun
 add(element: V): Boolean = throw UnsupportedOperationException("Add is not supported on values")
 }

 override fun clear() = this@AbstractMutableMap.clear()
 override operator fun
 contains(element: V): Boolean = containsValue(element)

 override operator fun iterator():
 MutableIterator<V> {
 val entryIterator = entries.iterator()
 return object :
 MutableIterator<V> {
 override fun hasNext(): Boolean = entryIterator.hasNext()
 override fun next(): V = entryIterator.next().value
 }

 override fun remove() =
 entryIterator.remove()
 }

 override val size: Int get() =
 this@AbstractMutableMap.size
 }

 // TODO: should we implement them this way? Currently it's
 unspecified in JVM
 }

 override fun equals(other: Any?): Boolean {
 if (this === other)
 return true
 if (other !is Collection<*>) return false
 return
 AbstractList.orderedEquals(this, other)
 }

 override fun hashCode(): Int =
 AbstractList.orderedHashCode(this)
 }

 return _values!!
 }

 actual
 override fun remove(key: K): V? {
 val iter = entries.iterator()
 while (iter.hasNext()) {
 val
 entry = iter.next()
 val k = entry.key
 if (key == k) {
 val value = entry.value
 iter.remove()
 return value
 }
 }

 return null
 }

"/**
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 * Use of this source code

```

```

is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\npackage
kotlin.collections\r\n\r\n/**\r\n * Provides a skeletal implementation of the [MutableSet] interface.\r\n */\r\n *
@param E the type of elements contained in the set. The set is invariant on its element type.\r\n */\r\npublic actual
abstract class AbstractMutableSet<E> protected actual constructor() : AbstractMutableCollection<E>(),
MutableSet<E> {\r\n\r\n    /**\r\n     * Compares this set with another set instance with the unordered structural
equality.\r\n     * @return `true`, if [other] instance is a [Set] of the same size, all elements of which are
contained in this set.\r\n     */\r\n    override fun equals(other: Any?): Boolean {\r\n        if (other === this) return
true\r\n        if (other !is Set<*>) return false\r\n        return AbstractSet.setEquals(this, other)\r\n    }\r\n\r\n    /**\r\n     * Returns the hash code value for this set.\r\n     */\r\n    override fun hashCode(): Int =
AbstractSet.unorderedHashCode(this)\r\n\r\n    "/**\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.collections\r\n\r\n/**\r\n * Provides a
[MutableList] implementation, which uses a resizable array as its backing storage.\r\n */\r\n * This implementation
doesn't provide a way to manage capacity, as backing JS array is resizable itself.\r\n * There is no speed advantage
to pre-allocating array sizes in JavaScript, so this implementation does not include any of the\r\n * capacity and
`"growth increment"` concepts.\r\n */\r\n\r\npublic actual open class ArrayList<E> internal constructor(private var
array: Array<Any?>) : AbstractMutableList<E>(), MutableList<E>, RandomAccess {\r\n\r\n    /**\r\n     * Creates
an empty [ArrayList].\r\n     */\r\n    public actual constructor() : this(emptyArray()) {\r\n\r\n    /**\r\n     * Creates
an empty [ArrayList].\r\n     * @param initialCapacity initial capacity (ignored)\r\n     */\r\n    @Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\r\n    public actual
constructor(initialCapacity: Int = 0) : this(emptyArray()) {\r\n\r\n    /**\r\n     * Creates an [ArrayList] filled from
the [elements] collection.\r\n     */\r\n    public actual constructor(elements: Collection<E>) :
this(elements.toArray<Any?>()) {\r\n\r\n    /** Does nothing in this ArrayList implementation. */\r\n    public actual
fun trimToSize() {\r\n\r\n    /** Does nothing in this ArrayList implementation. */\r\n    public actual
fun ensureCapacity(minCapacity: Int) {\r\n\r\n    actual override val size: Int get() = array.size\r\n    @Suppress("UNCHECKED_CAST")\r\n    actual override fun get(index: Int): E = array[rangeCheck(index)] as
E\r\n    actual override fun set(index: Int, element: E): E {\r\n        rangeCheck(index)\r\n    @Suppress("UNCHECKED_CAST")\r\n        return array[index].apply { array[index] = element } as E\r\n    }\r\n\r\n    actual override fun add(element: E): Boolean {\r\n        array.asDynamic().push(element)\r\n        modCount++\r\n        return true\r\n    }\r\n\r\n    actual override fun add(index: Int, element: E): Unit {\r\n        array.asDynamic().splice(insertionRangeCheck(index), 0, element)\r\n        modCount++\r\n    }\r\n\r\n    actual
override fun addAll(elements: Collection<E>): Boolean {\r\n        if (elements.isEmpty()) return false\r\n\r\n        array += elements.toArray<Any?>()\r\n        modCount++\r\n        return true\r\n    }\r\n\r\n    actual override
fun addAll(index: Int, elements: Collection<E>): Boolean {\r\n        insertionRangeCheck(index)\r\n\r\n        if
(index == size) return addAll(elements)\r\n        if (elements.isEmpty()) return false\r\n        when (index) {\r\n            size -> return addAll(elements)\r\n            0 -> array = elements.toArray<Any?>() + array\r\n            else ->
array = array.copyOfRange(0, index).asDynamic().concat(elements.toArray<Any?>(),
array.copyOfRange(index, size))\r\n        }\r\n\r\n        modCount++\r\n        return true\r\n    }\r\n\r\n    actual
override fun removeAt(index: Int): E {\r\n        rangeCheck(index)\r\n        modCount++\r\n        return if (index ==
lastIndex)\r\n            array.asDynamic().pop()\r\n        else\r\n            array.asDynamic().splice(index, 1)[0]\r\n    }\r\n\r\n    actual override fun remove(element: E): Boolean {\r\n        for (index in array.indices) {\r\n            if
(array[index] == element) {\r\n                array.asDynamic().splice(index, 1)\r\n                modCount++\r\n                return true\r\n            }\r\n        }\r\n        return false\r\n    }\r\n\r\n    override fun removeRange(fromIndex: Int,
toIndex: Int) {\r\n        modCount++\r\n        array.asDynamic().splice(fromIndex, toIndex - fromIndex)\r\n    }\r\n\r\n    actual override fun clear() {\r\n        array = emptyArray()\r\n        modCount++\r\n    }\r\n\r\n\r\n    actual
override fun indexOf(element: E): Int = array.indexOf(element)\r\n\r\n    actual override fun lastIndexOf(element:
E): Int = array.lastIndexOf(element)\r\n\r\n    override fun toString() = arrayToString(array)\r\n    override fun
toArray(): Array<Any?> = js("[ ]").slice.call(array)\r\n\r\n\r\n    private fun rangeCheck(index: Int) = index.apply

```



```

EqualityComparator {\r\n    /**\r\n     * Subclasses must override to return a value indicating\r\n     * whether or not
two keys or values are equal.\r\n     */\r\n    abstract fun equals(value1: Any?, value2: Any?): Boolean\r\n\r\n    /**\r\n     * Subclasses must override to return the hash code of a given key.\r\n     */\r\n    abstract fun
getHashCode(value: Any?): Int\r\n\r\n    object HashCode : EqualityComparator {\r\n        override fun
equals(value1: Any?, value2: Any?): Boolean = value1 == value2\r\n\r\n        override fun getHashCode(value:
Any?): Int = value?.hashCode() ?: 0\r\n    }\r\n}\r\n","/**\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\r\n */\r\n\r\n * Based on GWT AbstractHashMap\r\n * Copyright 2008
Google Inc.\r\n */\r\n\r\npackage kotlin.collections\r\n\r\nimport
kotlin.collections.MutableMap.MutableEntry\r\n\r\n/**\r\n * Hash table based implementation of the [MutableMap]
interface.\r\n */\r\n * This implementation makes no guarantees regarding the order of enumeration of [keys],
[values] and [entries] collections.\r\n */\r\n\r\npublic actual open class HashMap<K, V> : AbstractMutableMap<K, V>,
MutableMap<K, V> {\r\n\r\n    private inner class EntrySet : AbstractMutableSet<MutableEntry<K, V>>() {\r\n\r\n        override fun add(element: MutableEntry<K, V>): Boolean = throw UnsupportedOperationException("Add is not
supported on entries")\r\n\r\n        override fun clear() {\r\n            this@HashMap.clear()\r\n        }\r\n\r\n        override
operator fun contains(element: MutableEntry<K, V>): Boolean = containsEntry(element)\r\n\r\n        override
operator fun iterator(): MutableIterator<MutableEntry<K, V>> = internalMap.iterator()\r\n\r\n        override fun
remove(element: MutableEntry<K, V>): Boolean {\r\n            if (contains(element)) {\r\n
this@HashMap.remove(element.key)\r\n                return true\r\n            }\r\n            return false\r\n        }\r\n\r\n        override val size: Int get() = this@HashMap.size\r\n    }\r\n\r\n\r\n    /**\r\n     * Internal implementation of the map:
either string-based or hashcode-based.\r\n     */\r\n    private val internalMap: InternalMap<K, V>\r\n\r\n    private
val equality: EqualityComparator\r\n\r\n    internal constructor(internalMap: InternalMap<K, V>) : super() {\r\n
this.internalMap = internalMap\r\n        this.equality = internalMap.equality\r\n    }\r\n\r\n    /**\r\n     * Constructs
an empty [HashMap] instance.\r\n     */\r\n    actual constructor() :
this(InternalHashCodeMap(EqualityComparator.HashCode))\r\n\r\n    /**\r\n     * Constructs an empty [HashMap]
instance.\r\n     */\r\n     * @param initialCapacity the initial capacity (ignored)\r\n     * @param loadFactor the
load factor (ignored)\r\n     */\r\n     * @throws IllegalArgumentException if the initial capacity or load factor are
negative\r\n     */\r\n     @Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\r\n    actual
constructor(initialCapacity: Int, loadFactor: Float = 0.0f) : this() {\r\n        // This implementation of HashMap has
no need of load factors or capacities.\r\n        require(initialCapacity >= 0) { "Negative initial capacity:
$initialCapacity" }\r\n        require(loadFactor >= 0) { "Non-positive load factor: $loadFactor" }\r\n    }\r\n\r\n    actual
constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\r\n\r\n    /**\r\n     * Constructs an instance of
[HashMap] filled with the contents of the specified [original] map.\r\n     */\r\n    actual constructor(original:
Map<out K, V>) : this() {\r\n        this.putAll(original)\r\n    }\r\n\r\n    actual override fun clear() {\r\n
internalMap.clear()\r\n\r\n        structureChanged(this)\r\n    }\r\n\r\n    actual override fun containsKey(key: K):
Boolean = internalMap.containsKey()\r\n\r\n    actual override fun containsValue(value: V): Boolean =
internalMap.any { equality.equals(it.value, value) }\r\n\r\n    private var _entries:
MutableSet<MutableMap.MutableEntry<K, V>>? = null\r\n\r\n    actual override val entries:
MutableSet<MutableMap.MutableEntry<K, V>>\r\n        get() {\r\n            if (_entries == null) {\r\n
_entries = createEntrySet()\r\n            }\r\n            return _entries!!\r\n        }\r\n\r\n    protected open fun
createEntrySet(): MutableSet<MutableMap.MutableEntry<K, V>> = EntrySet()\r\n\r\n    actual override operator
fun get(key: K): V? = internalMap.get(key)\r\n\r\n    actual override fun put(key: K, value: V): V? =
internalMap.put(key, value)\r\n\r\n    actual override fun remove(key: K): V? = internalMap.remove(key)\r\n\r\n    actual
override val size: Int get() = internalMap.size\r\n\r\n}\r\n\r\n\r\n    /**\r\n     * Constructs the specialized
implementation of [HashMap] with [String] keys, which stores the keys as properties of\r\n     * JS object without
hashing them.\r\n     */\r\n    public fun <V> stringMapOf(vararg pairs: Pair<String, V>): HashMap<String, V> {\r\n
return HashMap<String, V>(InternalStringMap(EqualityComparator.HashCode)).apply { putAll(pairs)
}\r\n}\r\n","/**\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of

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*/\r\n*/\r\n * Based on GWT HashSet\r\n * Copyright 2008 Google Inc.\r\n */\r\n\r\npackage
kotlin.collections\r\n\r\n**\r\n * The implementation of the [MutableSet] interface, backed by a [HashMap]
instance.\r\n */\r\npublic actual open class HashSet<E> : AbstractMutableSet<E>, MutableSet<E> {\r\n\r\n
private val map: HashMap<E, Any>\r\n\r\n /**\r\n * Constructs a new empty [HashSet].\r\n */\r\n actual
constructor() {\r\n    map = HashMap<E, Any>()\r\n }\r\n\r\n /**\r\n * Constructs a new [HashSet] filled
with the elements of the specified collection.\r\n */\r\n actual constructor(elements: Collection<E>) {\r\n
map = HashMap<E, Any>(elements.size)\r\n    addAll(elements)\r\n }\r\n\r\n /**\r\n * Constructs a new
empty [HashSet].\r\n */\r\n * @param initialCapacity the initial capacity (ignored)\r\n * @param loadFactor
the load factor (ignored)\r\n */\r\n * @throws IllegalArgumentException if the initial capacity or load factor
are negative\r\n */\r\n @Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\r\n actual
constructor(initialCapacity: Int, loadFactor: Float = 0.0f) {\r\n    map = HashMap<E, Any>(initialCapacity,
loadFactor)\r\n }\r\n\r\n actual constructor(initialCapacity: Int) : this(initialCapacity, 0.0f)\r\n\r\n /**\r\n *
Protected constructor to specify the underlying map. This is used by\r\n * LinkedHashSet.\r\n */\r\n * @param
map underlying map to use.\r\n */\r\n internal constructor(map: HashMap<E, Any>) {\r\n    this.map =
map\r\n }\r\n\r\n actual override fun add(element: E): Boolean {\r\n    val old = map.put(element, this)\r\n
return old == null\r\n }\r\n\r\n actual override fun clear() {\r\n    map.clear()\r\n }\r\n\r\n// public override
fun clone(): Any {\r\n//    return HashSet<E>(this)\r\n// }\r\n\r\n actual override operator fun
contains(element: E): Boolean = map.containsKey(element)\r\n\r\n actual override fun isEmpty(): Boolean =
map.isEmpty()\r\n\r\n actual override fun iterator(): MutableIterator<E> = map.keys.iterator()\r\n\r\n actual
override fun remove(element: E): Boolean = map.remove(element) != null\r\n\r\n actual override val size: Int get()
= map.size\r\n\r\n}\r\n\r\n**\r\n * Creates a new instance of the specialized implementation of [HashSet] with the
specified [String] elements,\r\n * which elements the keys as properties of JS object without hashing them.\r\n
*/\r\n\r\npublic fun stringSetOf(vararg elements: String): HashSet<String> {\r\n    return
HashSet(stringMapOf<Any>()).apply { addAll(elements) }\r\n}\r\n}\r\n\r\n", /*\r\n * Copyright 2010-2018 JetBrains s.r.o.
and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\r\n */\r\n*/\r\n * Based on GWT InternalHashMap\r\n *
Copyright 2008 Google Inc.\r\n */\r\n\r\npackage kotlin.collections\r\n\r\nimport
kotlin.collections.MutableMap.MutableEntry\r\nimport
kotlin.collections.AbstractMutableMap.SimpleEntry\r\n\r\n\r\n**\r\n * A simple wrapper around JavaScriptObject to
provide [java.util.Map]-like semantics for any\r\n * key type.\r\n * \r\n * \r\n * Implementation notes:\r\n * \r\n * \r\n *
A key's hashCode is the index in backingMap which should contain that key. Since several keys may\r\n * have the
same hash, each value in hashCodeMap is actually an array containing all entries whose\r\n * keys share the same
hash.\r\n */\r\n\r\ninternal class InternalHashMap<K, V>(override val equality: EqualityComparator) :
InternalMap<K, V> {\r\n\r\n    private var backingMap: dynamic = createJsMap()\r\n    override var size: Int = 0\r\n
\r\n    private set\r\n\r\n    override fun put(key: K, value: V): V? {\r\n        val hashCode =
equality.getHashCode(key)\r\n        val chainOrEntry = getChainOrEntryOrNull(hashCode)\r\n        if (chainOrEntry
== null) {\r\n            // This is a new chain, put it to the map.\r\n            backingMap[hashCode] = SimpleEntry(key,
value)\r\n        } else {\r\n            if (chainOrEntry !is Array<*>) {\r\n                // It is an entry\r\n                val
entry: SimpleEntry<K, V> = chainOrEntry\r\n                if (equality.equals(entry.key, key)) {\r\n                    return
entry.setValue(value)\r\n                } else {\r\n                    backingMap[hashCode] = arrayOf(entry,
SimpleEntry(key, value))\r\n                    size++\r\n                    return null\r\n                } else {\r\n
\r\n                    // Chain already exists, perhaps key also exists.\r\n                    val chain: Array<MutableEntry<K, V>> =
chainOrEntry\r\n                    val entry = chain.findEntryInChain(key)\r\n                    if (entry != null) {\r\n
return entry.setValue(value)\r\n                    }\r\n                    chain.asDynamic().push(SimpleEntry(key, value))\r\n
}\r\n                }\r\n                size++\r\n            // structureChanged(host)\r\n            return null\r\n        }\r\n\r\n
\r\n        override fun
remove(key: K): V? {\r\n            val hashCode = equality.getHashCode(key)\r\n            val chainOrEntry =
getChainOrEntryOrNull(hashCode) ?: return null\r\n            if (chainOrEntry !is Array<*>) {\r\n                val entry:

```





```

EntrySet : AbstractMutableSet<MutableEntry<K, V>>() {\r\n\r\n    private inner class EntryIterator :
MutableIterator<MutableEntry<K, V>> {\r\n        // The last entry that was returned from this iterator.\r\n
private var last: ChainEntry<K, V>? = null\r\n\r\n        // The next entry to return from this iterator.\r\n
private var next: ChainEntry<K, V>? = null\r\n\r\n        init {\r\n            next = head\r\n//
recordLastKnownStructure(map, this)\r\n        }\r\n\r\n        override fun hasNext(): Boolean {\r\n
return next != null\r\n        }\r\n\r\n        override fun next(): MutableEntry<K, V> {\r\n//
checkStructuralChange(map, this)\r\n            if (!hasNext()) throw NoSuchElementException()\r\n\r\n
val current = next!!\r\n            last = current\r\n            next = current.next.takeIf { it != head }\r\n
return current\r\n        }\r\n\r\n        override fun remove() {\r\n            check(last != null)\r\n//
checkStructuralChange(map, this)\r\n            last!!.remove()\r\n            map.remove(last!!.key)\r\n//
recordLastKnownStructure(map, this)\r\n            last = null\r\n        }\r\n\r\n        override fun
add(element: MutableEntry<K, V>): Boolean = throw UnsupportedOperationException("Add is not supported on
entries")\r\n        override fun clear() {\r\n            this@LinkedHashMap.clear()\r\n        }\r\n\r\n        override
operator fun contains(element: MutableEntry<K, V>): Boolean = containsEntry(element)\r\n\r\n        override
operator fun iterator(): MutableIterator<MutableEntry<K, V>> = EntryIterator()\r\n\r\n        override fun
remove(element: MutableEntry<K, V>): Boolean {\r\n            if (contains(element)) {\r\n
this@LinkedHashMap.remove(element.key)\r\n                return true\r\n            }\r\n            return false\r\n
}\r\n\r\n        override val size: Int get() = this@LinkedHashMap.size\r\n        }\r\n\r\n\r\n        /*\r\n * The head of the
insert order chain, which is a doubly-linked circular\r\n * list.\r\n * \r\n * The most recently inserted node is at the
end of the chain, ie.\r\n * chain.prev.\r\n */\r\n        private var head: ChainEntry<K, V>? = null\r\n\r\n        /**\r\n *
Add this node to the end of the chain.\r\n * \r\n        private fun ChainEntry<K, V>.addToEnd() {\r\n            // This
entry is not in the list.\r\n            check(next == null && prev == null)\r\n\r\n            val _head = head\r\n            if (_head
== null) {\r\n                head = this\r\n                next = this\r\n                prev = this\r\n            } else {\r\n                // Chain is
valid.\r\n                val _tail = checkNotNull(_head.prev)\r\n                // Update me.\r\n                prev = _tail\r\n                next
= _head\r\n                // Update my new siblings: current head and old tail\r\n                _head.prev = this\r\n
                _tail.next = this\r\n            }\r\n        }\r\n\r\n        /**\r\n * Remove this node from the chain it is a part of.\r\n */\r\n
private fun ChainEntry<K, V>.remove() {\r\n            if (this.next === this) {\r\n                // if this is single element,
remove head\r\n                head = null\r\n            } else {\r\n                if (head === this) {\r\n                    // if this is first
element, move head to next\r\n                    head = next\r\n                }\r\n                next!!.prev = prev\r\n                prev!!.next
= next\r\n            }\r\n            next = null\r\n            prev = null\r\n        }\r\n\r\n        /**\r\n * The hashmap that keeps track of our
entries and the chain. Note that we\r\n * duplicate the key here to eliminate changes to HashMap and minimize
the\r\n * code here, at the expense of additional space.\r\n */\r\n        private val map: HashMap<K, ChainEntry<K,
V>>\r\n\r\n        /**\r\n * Constructs an empty [LinkedHashMap] instance.\r\n * \r\n        actual constructor() :
super() {\r\n            map = HashMap<K, ChainEntry<K, V>>()\r\n        }\r\n\r\n        internal constructor(backingMap:
HashMap<K, Any>): super() {\r\n            @SuppressWarnings("UNCHECKED_CAST") // expected to work due to
erasure\r\n            map = backingMap as HashMap<K, ChainEntry<K, V>>\r\n        }\r\n\r\n        /**\r\n * Constructs an
empty [LinkedHashMap] instance.\r\n * \r\n        * @param initialCapacity the initial capacity (ignored)\r\n        *
@param loadFactor the load factor (ignored)\r\n        * \r\n        * @throws IllegalArgumentException if the initial
capacity or load factor are negative\r\n        */\r\n
@Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")\r\n        actual
constructor(initialCapacity: Int, loadFactor: Float = 0.0f) : super(initialCapacity, loadFactor) {\r\n            map =
HashMap<K, ChainEntry<K, V>>()\r\n        }\r\n\r\n        actual constructor(initialCapacity: Int) : this(initialCapacity,
0.0f)\r\n\r\n        /**\r\n * Constructs an instance of [LinkedHashMap] filled with the contents of the specified
[original] map.\r\n * \r\n        actual constructor(original: Map<out K, V>) {\r\n            map = HashMap<K,
ChainEntry<K, V>>()\r\n            this.putAll(original)\r\n        }\r\n\r\n        actual override fun clear() {\r\n
map.clear()\r\n            head = null\r\n        }\r\n\r\n\r\n        override fun clone(): Any {\r\n//
return
LinkedHashMap(this)\r\n        }\r\n\r\n        actual override fun containsKey(key: K): Boolean =
map.containsKey(key)\r\n\r\n        actual override fun containsValue(value: V): Boolean {\r\n            var node:

```





Exposes the [Date API](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global\_Objects/Date) to Kotlin.

```

@Suppress("NOT_DOCUMENTED")
public external class Date() {
    public constructor(milliseconds: Number)
    public constructor(dateString: String)
    public constructor(year: Int, month: Int)
    public constructor(year: Int, month: Int, day: Int)
    public constructor(year: Int, month: Int, day: Int, hour: Int)
    public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int)
    public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int)
    public constructor(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int, millisecond: Number)
    public fun getDate(): Int
    public fun getDay(): Int
    public fun getFullYear(): Int
    public fun getHours(): Int
    public fun getMilliseconds(): Int
    public fun getMinutes(): Int
    public fun getMonth(): Int
    public fun getSeconds(): Int
    public fun getTime(): Double
    public fun getTimezoneOffset(): Int
    public fun getUTCDate(): Int
    public fun getUTCDay(): Int
    public fun getUTCFullYear(): Int
    public fun getUTCHours(): Int
    public fun getUTCMilliseconds(): Int
    public fun getUTCMinutes(): Int
    public fun getUTCMonth(): Int
    public fun getUTCSeconds(): Int
    public fun toDateString(): String
    public fun toISOString(): String
    public fun toJSON(): Json
    public fun toLocaleDateString(locales: Array<String> = definedExternally, options: LocaleOptions = definedExternally): String
    public fun toLocaleDateString(locales: String, options: LocaleOptions = definedExternally): String
    public fun toLocaleString(locales: Array<String> = definedExternally, options: LocaleOptions = definedExternally): String
    public fun toLocaleString(locales: String, options: LocaleOptions = definedExternally): String
    public fun toLocaleTimeString(locales: Array<String> = definedExternally, options: LocaleOptions = definedExternally): String
    public fun toLocaleTimeString(locales: String, options: LocaleOptions = definedExternally): String
    public fun toTimeString(): String
    public fun toUTCString(): String
    public companion object {
        public fun now(): Double
        public fun parse(dateString: String): Double
        public fun UTC(year: Int, month: Int): Double
        public fun UTC(year: Int, month: Int, day: Int): Double
        public fun UTC(year: Int, month: Int, day: Int, hour: Int): Double
        public fun UTC(year: Int, month: Int, day: Int, hour: Int, minute: Int): Double
        public fun UTC(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int): Double
        public fun UTC(year: Int, month: Int, day: Int, hour: Int, minute: Int, second: Int, millisecond: Number): Double
    }
}

public interface LocaleOptions {
    public var localeMatcher: String?
    public var timeZone: String?
    public var hour12: Boolean?
    public var formatMatcher: String?
    public var weekday: String?
    public var era: String?
    public var year: String?
    public var month: String?
    public var day: String?
    public var hour: String?
    public var minute: String?
    public var second: String?
    public var timeZoneName: String?
}

public inline fun dateLocaleOptions(init: Date.LocaleOptions.() -> Unit): Date.LocaleOptions {
    val result = js("new Object()").unsafeCast<Date.LocaleOptions>()
    init(result)
    return result
}

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 */
package kotlin.dom
import org.w3c.dom.*
 * Creates a new element with the specified [name].
 * The element is initialized with the specified [init] function.
 */
public fun Document.createElement(name: String, init: Element.() -> Unit): Element = createElement(name).apply(init)
 * Appends a newly created element with the specified [name] to this element.
 * The element is initialized with the specified [init] function.
 */
public fun Element.appendChild(name: String, init: Element.() -> Unit): Element = ownerDocument!!.createElement(name, init).also { appendChild(it) }
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 */
package kotlin.dom
import org.w3c.dom.*
 * Returns true if the element has the given CSS class style in its 'class' attribute
 */
fun Element.hasClass(cssClass: String): Boolean =
    className.matches("\\\\\\"(\\.|.*\\s+)$cssClass(\\|\\s+.*)"\\.toRegex())
 * Adds CSS class to element.

```

```

Has no effect if all specified classes are already in class attribute of the element
@return true if at least one class has been added
fun Element.addClass(vararg cssClasses: String): Boolean {
    val missingClasses = cssClasses.filterNot { hasClass(it) }
    if (missingClasses.isNotEmpty()) {
        val presentClasses = className.trim()
        className = buildString {
            append(presentClasses)
            if (!presentClasses.isEmpty()) {
                append(" ")
            }
            missingClasses.joinTo(this, " ")
        }
        return true
    }
    return false
}

Removes all [cssClasses] from element. Has no effect if all specified classes are missing in class attribute of the element
@return true if at least one class has been removed
fun Element.removeClass(vararg cssClasses: String): Boolean {
    if (cssClasses.any { hasClass(it) }) {
        val toBeRemoved = cssClasses.toSet()
        className = className.trim().split("\\s+").toRegex().filter { it !in toBeRemoved }.joinToString(" ")
        return true
    }
    return false
}

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@file:kotlin.jvm.JvmMultifileClass
@file:kotlin.jvm.JvmName("StringsKt")
package kotlin.text

/**
 * Converts the string into a regular expression [Regex] with the default options.
 */
@kotlin.internal.InlineOnly
public inline fun String.toRegex(): Regex = Regex(this)

/**
 * Converts the string into a regular expression [Regex] with the specified single [option].
 */
@kotlin.internal.InlineOnly
public inline fun String.toRegex(option: RegexOption): Regex = Regex(this, option)

/**
 * Converts the string into a regular expression [Regex] with the specified set of [options].
 */
@kotlin.internal.InlineOnly
public inline fun String.toRegex(options: Set<RegexOption>): Regex = Regex(this, options)

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@file:kotlin.jvm.JvmMultifileClass
@file:kotlin.jvm.JvmName("StringsKt")
package kotlin.text

/**
 * Builds new string by populating newly created [StringBuilder] using provided [builderAction]
 * and then converting it to [String].
 */
@kotlin.internal.InlineOnly
public inline fun buildString(builderAction: StringBuilder.() -> Unit): String =
    StringBuilder().apply(builderAction).toString()

/**
 * Builds new string by populating newly created [StringBuilder] initialized with the given [capacity]
 * using provided [builderAction] and then converting it to [String].
 */
@SinceKotlin("1.1")
@kotlin.internal.InlineOnly
public inline fun buildString(capacity: Int, builderAction: StringBuilder.() -> Unit): String =
    StringBuilder(capacity).apply(builderAction).toString()

/**
 * Appends all arguments to the given [Appendable].
 */
public fun <T : Appendable> T.append(vararg value: CharSequence?): T {
    for (item in value) {
        append(item)
    }
    return this
}

/**
 * Appends all arguments to the given [StringBuilder].
 */
public fun StringBuilder.append(vararg value: String?): StringBuilder {
    for (item in value) {
        append(item)
    }
    return this
}

/**
 * Appends all arguments to the given [StringBuilder].
 */
public fun StringBuilder.append(vararg value: Any?): StringBuilder {
    for (item in value) {
        append(item)
    }
    return this
}

internal fun <T> Appendable.appendElement(element: T, transform: ((T) -> CharSequence?) {
    when {
        transform != null -> append(transform(element))
        element is CharSequence -> append(element)
        element is Char -> append(element)
        else -> append(element.toString())
    }
})

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package kotlin.dom

import org.w3c.dom.*

/**
 * Gets a value indicating whether this node is a TEXT_NODE or a CDATA_SECTION_NODE.
 */
public val Node.isText: Boolean
    get() = nodeType == Node.TEXT_NODE || nodeType == Node.CDATA_SECTION_NODE

/**
 * Gets a value indicating whether this node is an [Element].
 */
public val Node.isElement: Boolean
    get() = nodeType == Node.ELEMENT_NODE

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```

```

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org.w3c.dom.events.EventListener(handler: (Event) -> Unit): EventListener =
EventListenerHandler(handler)
private class EventListenerHandler(private val handler: (Event) -> Unit) :
EventListener {
    public override fun handleEvent(event: Event) {
        handler(event)
    }
    public override fun toString(): String = "EventListenerHandler($handler)"
}
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org.w3c.dom.external interface ItemArrayLike<out T> {
    val length: Int
    fun item(index: Int):
T?
}
Returns the view of this `ItemArrayLike<T>` collection as `List<T>`
public fun
<T> ItemArrayLike<T>.asList(): List<T> = object : AbstractList<T>() {
    override val size: Int get() =
this@asList.length
    override fun get(index: Int): T = when (index) {
        in 0..lastIndex ->
this@asList.item(index).unsafeCast<T>()
        else -> throw IndexOutOfBoundsException("index $index is not
in range [0..$lastIndex]")
    }
}
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Language contributors.
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license/LICENSE.txt file.
kotlin.dom
nimport org.w3c.dom.
Removes all the
children from this node.
public fun Node.clear() {
    while (hasChildNodes()) {
        removeChild(firstChild!)
    }
}
Creates text node and append it to the element.
return this element
fun Element.appendText(text: String): Element {
    appendChild(ownerDocument!!.createTextNode(text))
    return this
}
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kotlin.js
Reinterprets this value as a value of the [dynamic type](docs/reference/dynamic-type.html).
@kotlin.internal.InlineOnly
public inline fun Any?.asDynamic(): dynamic = this
Reinterprets this value as a value of the specified type [T] without any actual type checking.
@kotlin.internal.InlineOnly
public inline fun <T> Any?.unsafeCast(): @kotlin.internal.NoInfer T =
this.asDynamic()
Reinterprets this `dynamic` value as a value of the specified type [T] without any
actual type checking.
@kotlin.internal.DynamicExtension
@JsName("unsafeCastDynamic")
@kotlin.internal.InlineOnly
public inline fun <T> dynamic.unsafeCast(): @kotlin.internal.NoInfer T = this
Allows to iterate this
`dynamic` object in the following cases:
- when it has an `iterator` function,
- when it is an array,
- when it is an instance of [kotlin.collections.Iterable]
@kotlin.internal.DynamicExtension
public operator
fun dynamic.iterator(): Iterator<dynamic> {
    val r: Any? = this
    return when {
        this["iterator"]
        != null -> this["iterator"]()
        isArrayish(r) -> r.unsafeCast<Array<*>>().iterator()
        else -> (r as Iterable<*>).iterator()
    }
}
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kotlin
NOTE: Do not author your
exceptions as they are written in this file, instead use this template:
public open class MyException :
Exception {
    constructor() : super()
    constructor(message: String?) : super(message)
    constructor(message: String?, cause: Throwable?) : super(message, cause)
    constructor(cause: Throwable?) :
super(cause)
}
TODO: remove workarounds for KT-22053 from direct Throwable
inheritors
TODO: remove primary constructors, make all secondary KT-
22055
@Suppress("USELESS_ELVIS_RIGHT_IS_NULL")
public actual open class Error actual
constructor(message: String?, cause: Throwable?) : Throwable(message, cause?: null) {
    actual constructor() :
this(null, null)
    Error::class.js.asDynamic().call(this, null, null)
}
actual constructor(message:
String?) : this(message, null)
    Error::class.js.asDynamic().call(this, message, null)
}
actual
constructor(cause: Throwable?) : this(undefiend, cause)
    Error::class.js.asDynamic().call(this, undefiend,
cause)
}
@Suppress("USELESS_ELVIS_RIGHT_IS_NULL")
public actual open class
Exception actual constructor(message: String?, cause: Throwable?) : Throwable(message, cause?: null) {
}

```

```

actual constructor() : this(null, null) {\r\n    Exception::class.js.asDynamic().call(this, null, null)\r\n    }\r\n\r\n
actual constructor(message: String?) : this(message, null) {\r\n    Exception::class.js.asDynamic().call(this,
message, null)\r\n    }\r\n\r\n
actual constructor(cause: Throwable?) : this(undefined, cause) {\r\n
Exception::class.js.asDynamic().call(this, undefined, cause)\r\n    }\r\n}\r\n\r\npublic actual open class
RuntimeException actual constructor(message: String?, cause: Throwable?) : Exception(message, cause) {\r\n
actual constructor() : this(null, null)\r\n    actual constructor(message: String?) : this(message, null)\r\n    actual
constructor(cause: Throwable?) : this(undefined, cause)\r\n}\r\n\r\npublic actual open class
IllegalArgumentException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message,
cause) {\r\n    actual constructor() : this(null, null)\r\n    actual constructor(message: String?) : this(message, null)\r\n
actual constructor(cause: Throwable?) : this(undefined, cause)\r\n}\r\n\r\npublic actual open class
IllegalStateException actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause)
{\r\n    actual constructor() : this(null, null)\r\n    actual constructor(message: String?) : this(message, null)\r\n
actual constructor(cause: Throwable?) : this(undefined, cause)\r\n}\r\n\r\npublic actual open class
IndexOutOfBoundsException actual constructor(message: String?) : RuntimeException(message) {\r\n    actual
constructor() : this(null)\r\n}\r\n\r\npublic actual open class ConcurrentModificationException actual
constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\r\n    actual constructor() :
this(null, null)\r\n    actual constructor(message: String?) : this(message, null)\r\n    actual constructor(cause:
Throwable?) : this(undefined, cause)\r\n}\r\n\r\npublic actual open class UnsupportedOperationException actual
constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\r\n    actual constructor() :
this(null, null)\r\n    actual constructor(message: String?) : this(message, null)\r\n    actual constructor(cause:
Throwable?) : this(undefined, cause)\r\n}\r\n\r\n\r\npublic actual open class NumberFormatException actual
constructor(message: String?) : IllegalArgumentException(message) {\r\n    actual constructor() :
this(null)\r\n}\r\n\r\n\r\npublic actual open class NullPointerException actual constructor(message: String?) :
RuntimeException(message) {\r\n    actual constructor() : this(null)\r\n}\r\n\r\n\r\npublic actual open class
ClassCastException actual constructor(message: String?) : RuntimeException(message) {\r\n    actual constructor() :
this(null)\r\n}\r\n\r\n\r\npublic actual open class AssertionError private constructor(message: String?, cause:
Throwable?) : Error(message, cause) {\r\n    actual constructor() : this(null)\r\n    constructor(message: String?) :
this(message, null)\r\n    actual constructor(message: Any?) : this(message.toString(), message as?
Throwable)\r\n}\r\n\r\n\r\npublic actual open class NoSuchElementException actual constructor(message: String?) :
RuntimeException(message) {\r\n    actual constructor() : this(null)\r\n}\r\n\r\n\r\n@SinceKotlin(1.3)\r\n\r\npublic
actual open class ArithmeticException actual constructor(message: String?) : RuntimeException(message) {\r\n
actual constructor() : this(null)\r\n}\r\n\r\n\r\npublic actual open class NoWhenBranchMatchedException actual
constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\r\n    actual constructor() :
this(null, null)\r\n    actual constructor(message: String?) : this(message, null)\r\n    actual constructor(cause:
Throwable?) : this(undefined, cause)\r\n}\r\n\r\n\r\npublic actual open class UninitializedPropertyAccessException
actual constructor(message: String?, cause: Throwable?) : RuntimeException(message, cause) {\r\n    actual
constructor() : this(null, null)\r\n    actual constructor(message: String?) : this(message, null)\r\n    actual
constructor(cause: Throwable?) : this(undefined, cause)\r\n}\r\n\r\n", /*\r\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\r\n */\r\n\r\n// a package is omitted to get declarations directly under
the module\r\n\r\n@JsName("throwNPE")\r\n\r\ninternal fun throwNPE(message: String) {\r\n    throw
NullPointerException(message)\r\n}\r\n\r\n\r\n@JsName("throwCCE")\r\n\r\ninternal fun throwCCE() {\r\n    throw
ClassCastException("Illegal cast")\r\n}\r\n\r\n\r\n@JsName("throwISE")\r\n\r\ninternal fun throwISE(message: String)
{\r\n    throw IllegalStateException(message)\r\n}\r\n\r\n\r\n@JsName("throwUPAE")\r\n\r\ninternal fun
throwUPAE(propertyName: String) {\r\n    throw UninitializedPropertyAccessException("lateinit property
${propertyName} has not been initialized")\r\n}\r\n\r\n", /*\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
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```

```

*@\r\n\r\n@file:kotlin.jvm.JvmName("\r\nGroupingKt")\r\n@file:kotlin.jvm.JvmMultifileClass\r\n\r\npackage
kotlin.collections\r\n\r\n/**\r\n * Represents a source of elements with a [keyOf] function, which can be applied to
each element to get its key.\r\n * A [Grouping] structure serves as an intermediate step in group-and-fold
operations:\r\n * they group elements by their keys and then fold each group with some aggregating operation.\r\n
*\r\n * It is created by attaching `keySelector: (T) -> K` function to a source of elements.\r\n * To get an instance of
[Grouping] use one of `groupingBy` extension functions:\r\n * - [Iterable.groupingBy]\r\n * -
[Sequence.groupingBy]\r\n * - [Array.groupingBy]\r\n * - [CharSequence.groupingBy]\r\n * For the list of
group-and-fold operations available, see the [extension functions](#extension-functions) for `Grouping`.\r\n
*\r\n@SinceKotlin("1.1")\r\n\r\npublic interface Grouping<T, out K> {\r\n    /** Returns an [Iterator] over the
elements of the source of this grouping. */\r\n    fun sourceIterator(): Iterator<T>\r\n    /** Extracts the key of an
[element]. */\r\n    fun keyOf(element: T): K\r\n}\r\n\r\n/**\r\n * Groups elements from the [Grouping] source by
key and applies [operation] to the elements of each group sequentially,\r\n * passing the previously accumulated
value and the current element as arguments, and stores the results in a new map.\r\n * The key for each element
is provided by the [Grouping.keyOf] function.\r\n * @param operation function is invoked on each element
with the following parameters:\r\n * - `key`: the key of the group this element belongs to;\r\n * - `accumulator`: the
current value of the accumulator of the group, can be `null` if it's the first `element` encountered in the group;\r\n
* - `element`: the element from the source being aggregated;\r\n * - `first`: indicates whether it's the first `element`
encountered in the group.\r\n * @return a [Map] associating the key of each group with the result of
aggregation of the group elements.\r\n * @sample samples.collections.Grouping.aggregateByRadix\r\n
*\r\n@SinceKotlin("1.1")\r\n\r\npublic inline fun <T, K, R> Grouping<T, K>.aggregate(\r\n    operation: (key: K,
accumulator: R?, element: T, first: Boolean) -> R\r\n): Map<K, R> {\r\n    return aggregateTo(mutableMapOf<K,
R>(), operation)\r\n}\r\n\r\n/**\r\n * Groups elements from the [Grouping] source by key and applies [operation] to
the elements of each group sequentially,\r\n * passing the previously accumulated value and the current element as
arguments,\r\n * and stores the results in the given [destination] map.\r\n * The key for each element is
provided by the [Grouping.keyOf] function.\r\n * @param operation a function that is invoked on each element
with the following parameters:\r\n * - `key`: the key of the group this element belongs to;\r\n * - `accumulator`: the
current value of the accumulator of the group, can be `null` if it's the first `element` encountered in the group;\r\n
* - `element`: the element from the source being aggregated;\r\n * - `first`: indicates whether it's the first `element`
encountered in the group.\r\n * If the [destination] map already has a value corresponding to some key,\r\n *
then the elements being aggregated for that key are never considered as `first`.\r\n * @return the [destination]
map associating the key of each group with the result of aggregation of the group elements.\r\n * @sample
samples.collections.Grouping.aggregateByRadixTo\r\n
*\r\n@SinceKotlin("1.1")\r\n\r\npublic inline fun <T, K, R, M
: MutableMap<in K, R>> Grouping<T, K>.aggregateTo(\r\n    destination: M,\r\n    operation: (key: K,
accumulator: R?, element: T, first: Boolean) -> R\r\n): M {\r\n    for (e in this.sourceIterator()) {\r\n        val key =
keyOf(e)\r\n        val accumulator = destination[key]\r\n        destination[key] = operation(key, accumulator, e,
accumulator == null && !destination.containsKey(key))\r\n    }\r\n    return destination\r\n}\r\n\r\n/**\r\n * Groups
elements from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\r\n
* passing the previously accumulated value and the current element as arguments, and stores the results in a new
map.\r\n * An initial value of accumulator is provided by [initialValueSelector] function.\r\n * @param
initialValueSelector a function that provides an initial value of accumulator for each group.\r\n * It's invoked with
parameters:\r\n * - `key`: the key of the group;\r\n * - `element`: the first element being encountered in that
group.\r\n * @param operation a function that is invoked on each element with the following parameters:\r\n
* - `key`: the key of the group this element belongs to;\r\n * - `accumulator`: the current value of the accumulator of
the group;\r\n * - `element`: the element from the source being accumulated.\r\n * @return a [Map]
associating the key of each group with the result of accumulating the group elements.\r\n * @sample
samples.collections.Grouping.foldByEvenLengthWithComputedInitialValue\r\n
*\r\n@SinceKotlin("1.1")\r\n\r\npublic inline fun <T, K, R> Grouping<T, K>.fold(\r\n    initialValueSelector: (key:
K, element: T) -> R,\r\n    operation: (key: K, accumulator: R, element: T) -> R\r\n): Map<K, R> =\r\n

```

```

@Suppress("UNCHECKED_CAST")\r\n    aggregate { key, acc, e, first -> operation(key, if (first)
initialValueSelector(key, e) else acc as R, e) }\r\n\r\n/**\r\n * Groups elements from the [Grouping] source by key
and applies [operation] to the elements of each group sequentially,\r\n * passing the previously accumulated value
and the current element as arguments,\r\n * and stores the results in the given [destination] map.\r\n * An initial
value of accumulator is provided by [initialValueSelector] function.\r\n * @param initialValueSelector a
function that provides an initial value of accumulator for each group.\r\n * It's invoked with parameters:\r\n * -
`key`: the key of the group;\r\n * - `element`: the first element being encountered in that group.\r\n * If the
[destination] map already has a value corresponding to some key, that value is used as an initial value of\r\n * the
accumulator for that group and the [initialValueSelector] function is not called for that group.\r\n * @param
operation a function that is invoked on each element with the following parameters:\r\n * - `key`: the key of the
group this element belongs to;\r\n * - `accumulator`: the current value of the accumulator of the group;\r\n * -
`element`: the element from the source being accumulated.\r\n * @return the [destination] map associating the
key of each group with the result of accumulating the group elements.\r\n * @sample
samples.collections.Grouping.foldByEvenLengthWithComputedInitialValueTo\r\n
*/\r\n@SinceKotlin("1.1")\r\npublic inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.foldTo(\r\n
destination: M,\r\n    initialValueSelector: (key: K, element: T) -> R,\r\n    operation: (key: K, accumulator: R,
element: T) -> R\r\n): M =\r\n    @Suppress("UNCHECKED_CAST")\r\n    aggregateTo(destination) { key, acc, e,
first -> operation(key, if (first) initialValueSelector(key, e) else acc as R, e) }\r\n\r\n\r\n/**\r\n * Groups elements
from the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\r\n * passing the
previously accumulated value and the current element as arguments, and stores the results in a new map.\r\n * An
initial value of accumulator is the same [initialValue] for each group.\r\n * @param operation a function
that is invoked on each element with the following parameters:\r\n * - `accumulator`: the current value of the
accumulator of the group;\r\n * - `element`: the element from the source being accumulated.\r\n * @return a
[Map] associating the key of each group with the result of accumulating the group elements.\r\n * @sample
samples.collections.Grouping.foldByEvenLengthWithConstantInitialValue\r\n
*/\r\n@SinceKotlin("1.1")\r\npublic inline fun <T, K, R> Grouping<T, K>.fold(\r\n    initialValue: R,\r\n
operation: (accumulator: R, element: T) -> R\r\n): Map<K, R> =\r\n    @Suppress("UNCHECKED_CAST")\r\n
aggregate { _, acc, e, first -> operation(if (first) initialValue else acc as R, e) }\r\n\r\n\r\n/**\r\n * Groups elements from
the [Grouping] source by key and applies [operation] to the elements of each group sequentially,\r\n * passing the
previously accumulated value and the current element as arguments,\r\n * and stores the results in the given
[destination] map.\r\n * An initial value of accumulator is the same [initialValue] for each group.\r\n * If the
[destination] map already has a value corresponding to the key of some group,\r\n * that value is used as an initial
value of the accumulator for that group.\r\n * @param operation a function that is invoked on each element
with the following parameters:\r\n * - `accumulator`: the current value of the accumulator of the group;\r\n * -
`element`: the element from the source being accumulated.\r\n * @return the [destination] map associating the
key of each group with the result of accumulating the group elements.\r\n * @sample
samples.collections.Grouping.foldByEvenLengthWithConstantInitialValueTo\r\n
*/\r\n@SinceKotlin("1.1")\r\npublic inline fun <T, K, R, M : MutableMap<in K, R>> Grouping<T, K>.foldTo(\r\n
destination: M,\r\n    initialValue: R,\r\n    operation: (accumulator: R, element: T) -> R\r\n): M =\r\n
\r\n    @Suppress("UNCHECKED_CAST")\r\n    aggregateTo(destination) { _, acc, e, first -> operation(if (first)
initialValue else acc as R, e) }\r\n\r\n\r\n/**\r\n * Groups elements from the [Grouping] source by key and applies
the reducing [operation] to the elements of each group\r\n * sequentially starting from the second element of the
group,\r\n * passing the previously accumulated value and the current element as arguments,\r\n * and stores the
results in a new map.\r\n * An initial value of accumulator is the first element of the group.\r\n * @param
operation a function that is invoked on each subsequent element of the group with the following parameters:\r\n * -
`key`: the key of the group this element belongs to;\r\n * - `accumulator`: the current value of the accumulator of
the group;\r\n * - `element`: the element from the source being accumulated.\r\n * @return a [Map]
associating the key of each group with the result of accumulating the group elements.\r\n * @sample

```

```

samples.collections.Grouping.reduceByMaxVowels\r\n * \r\n @SinceKotlin("1.1")\r\n public inline fun <S, T : S,
K> Grouping<T, K>.reduce(\r\n    operation: (key: K, accumulator: S, element: T) -> S\r\n): Map<K, S> =\r\n
aggregate { key, acc, e, first ->\r\n    @Suppress("UNCHECKED_CAST")\r\n        if (first) e else operation(key,
acc as S, e)\r\n    }\r\n\r\n/**\r\n * Groups elements from the [Grouping] source by key and applies the reducing
[operation] to the elements of each group\r\n * sequentially starting from the second element of the group,\r\n * passing the previously accumulated value and the current element as arguments,\r\n * and stores the results in the
given [destination] map.\r\n * An initial value of accumulator is the first element of the group.\r\n * \r\n * If the
[destination] map already has a value corresponding to the key of some group,\r\n * that value is used as an initial
value of the accumulator for that group and the first element of that group is also\r\n * subjected to the
[operation].\r\n\r\n * @param operation a function that is invoked on each subsequent element of the group with the
following parameters:\r\n * - `accumulator`: the current value of the accumulator of the group;\r\n * - `element`:
the element from the source being folded;\r\n * \r\n * @return the [destination] map associating the key of each
group with the result of accumulating the group elements.\r\n * @sample
samples.collections.Grouping.reduceByMaxVowelsTo\r\n * \r\n @SinceKotlin("1.1")\r\n public inline fun <S, T :
S, K, M : MutableMap<in K, S>> Grouping<T, K>.reduceTo(\r\n    destination: M,\r\n    operation: (key: K,
accumulator: S, element: T) -> S\r\n): M =\r\n    aggregateTo(destination) { key, acc, e, first ->\r\n
@Suppress("UNCHECKED_CAST")\r\n        if (first) e else operation(key, acc as S, e)\r\n    }\r\n\r\n\r\n/**\r\n * Groups elements from the [Grouping] source by key and counts elements in each group to the given [destination]
map.\r\n * \r\n * If the [destination] map already has a value corresponding to the key of some group,\r\n * that value
is used as an initial value of the counter for that group.\r\n * \r\n * @return the [destination] map associating the key
of each group with the count of elements in the group.\r\n * @sample
samples.collections.Grouping.groupingByEachCount\r\n * \r\n @SinceKotlin("1.1")\r\n public fun <T, K, M :
MutableMap<in K, Int>> Grouping<T, K>.eachCountTo(destination: M): M =\r\n    foldTo(destination, 0) { acc, _ -
> acc + 1 }\r\n\r\n\r\n/**\r\n * Groups elements from the [Grouping] source by key and sums values provided by
the [valueSelector] function for elements in each group\r\n * to the given [destination] map.\r\n * \r\n * If the
[destination] map already has a value corresponding to the key of some group,\r\n * that value is used as an initial
value of the sum for that group.\r\n * \r\n * @return the [destination] map associating the key of each group with the
sum of elements in the group.\r\n * \r\n @SinceKotlin("1.1")\r\n public inline fun <T, K, M : MutableMap<in K,
Int>> Grouping<T, K>.eachSumOfTo(destination: M, valueSelector: (T) -> Int): M =\r\n    foldTo(destination, 0)
{ acc, e -> acc + valueSelector(e) }\r\n\r\n\r\n// TODO: sum by long and by double overloads\r\n\r\n public
inline fun <T, K, M : MutableMap<in K, Long>> Grouping<T, K>.sumEachByLongTo(destination: M,
valueSelector: (T) -> Long): M =\r\n    foldTo(destination, 0L) { acc, e -> acc + valueSelector(e) }\r\n\r\n\r\n public
inline fun <T, K> Grouping<T, K>.sumEachByLong(valueSelector: (T) -> Long): Map<K, Long> =\r\n
fold(0L) { acc, e -> acc + valueSelector(e) }\r\n\r\n\r\n public inline fun <T, K, M : MutableMap<in K, Double>>
Grouping<T, K>.sumEachByDoubleTo(destination: M, valueSelector: (T) -> Double): M =\r\n
foldTo(destination, 0.0) { acc, e -> acc + valueSelector(e) }\r\n\r\n\r\n public inline fun <T, K> Grouping<T,
K>.sumEachByDouble(valueSelector: (T) -> Double): Map<K, Double> =\r\n    fold(0.0) { acc, e -> acc +
valueSelector(e) }\r\n\r\n\r\n/**\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\r\n * \r\n package kotlin.collections\r\n\r\n /**\r\n * Groups elements from the [Grouping]
source by key and counts elements in each group.\r\n * \r\n * @return a [Map] associating the key of each group with
the count of element in the group.\r\n * \r\n @SinceKotlin("1.1")\r\n public actual fun <T, K> Grouping<T,
K>.eachCount(): Map<K, Int> =\r\n    fold(0) { acc, _ -> acc + 1 }\r\n\r\n\r\n /**\r\n * Groups elements from the
[Grouping] source by key and sums values provided by the [valueSelector] function for elements in each group.\r\n
\r\n * @return a [Map] associating the key of each group with the count of element in the group.\r\n
\r\n @SinceKotlin("1.1")\r\n public inline fun <T, K> Grouping<T, K>.eachSumOf(valueSelector: (T) -> Int):
Map<K, Int> =\r\n    fold(0) { acc, e -> acc + valueSelector(e) }\r\n\r\n\r\n/**\r\n * Copyright 2010-2018 JetBrains
s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0

```

license that can be found in the license/LICENSE.txt file.

```

package kotlin.js
 * Exposes the JavaScript [Math object](https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/Math) to Kotlin.
 @Deprecated("Use top-level functions from kotlin.math package instead.", level = DeprecationLevel.WARNING)
 public external object Math {
 @Deprecated("Use kotlin.math.PI instead.", ReplaceWith("PI", "kotlin.math.PI"), level = DeprecationLevel.ERROR)
 public val PI: Double
 @Deprecated("Use Random.nextDouble instead", ReplaceWith("kotlin.random.Random.nextDouble()", "kotlin.random.Random"), level = DeprecationLevel.WARNING)
 public fun random(): Double
 @Deprecated("Use kotlin.math.abs instead.", ReplaceWith("abs(value)", "kotlin.math.abs"), level = DeprecationLevel.ERROR)
 public fun abs(value: Double): Double
 @Deprecated("Use kotlin.math.acos instead.", ReplaceWith("acos(value)", "kotlin.math.acos"), level = DeprecationLevel.ERROR)
 public fun acos(value: Double): Double
 @Deprecated("Use kotlin.math.asin instead.", ReplaceWith("asin(value)", "kotlin.math.asin"), level = DeprecationLevel.ERROR)
 public fun asin(value: Double): Double
 @Deprecated("Use kotlin.math.atan instead.", ReplaceWith("atan(value)", "kotlin.math.atan"), level = DeprecationLevel.ERROR)
 public fun atan(value: Double): Double
 @Deprecated("Use kotlin.math.atan2 instead.", ReplaceWith("atan2(y, x)", "kotlin.math.atan2"), level = DeprecationLevel.ERROR)
 public fun atan2(y: Double, x: Double): Double
 @Deprecated("Use kotlin.math.cos instead.", ReplaceWith("cos(value)", "kotlin.math.cos"), level = DeprecationLevel.ERROR)
 public fun cos(value: Double): Double
 @Deprecated("Use kotlin.math.sin instead.", ReplaceWith("sin(value)", "kotlin.math.sin"), level = DeprecationLevel.ERROR)
 public fun sin(value: Double): Double
 @Deprecated("Use kotlin.math.exp instead.", ReplaceWith("exp(value)", "kotlin.math.exp"), level = DeprecationLevel.ERROR)
 public fun exp(value: Double): Double
 @Deprecated("Use maxOf or kotlin.math.max instead", level = DeprecationLevel.ERROR)
 public fun max(vararg values: Int): Int
 @Deprecated("Use maxOf or kotlin.math.max instead", level = DeprecationLevel.ERROR)
 public fun max(vararg values: Float): Float
 @Deprecated("Use maxOf or kotlin.math.max instead", level = DeprecationLevel.ERROR)
 public fun max(vararg values: Double): Double
 @Deprecated("Use minOf or kotlin.math.min instead", level = DeprecationLevel.ERROR)
 public fun min(vararg values: Int): Int
 @Deprecated("Use minOf or kotlin.math.min instead", level = DeprecationLevel.ERROR)
 public fun min(vararg values: Float): Float
 @Deprecated("Use minOf or kotlin.math.min instead", level = DeprecationLevel.ERROR)
 public fun min(vararg values: Double): Double
 @Deprecated("Use kotlin.math.sqrt instead.", ReplaceWith("sqrt(value)", "kotlin.math.sqrt"), level = DeprecationLevel.ERROR)
 public fun sqrt(value: Double): Double
 @Deprecated("Use kotlin.math.tan instead.", ReplaceWith("tan(value)", "kotlin.math.tan"), level = DeprecationLevel.ERROR)
 public fun tan(value: Double): Double
 @Deprecated("Use kotlin.math.ln instead.", ReplaceWith("ln(value)", "kotlin.math.ln"), level = DeprecationLevel.ERROR)
 public fun log(value: Double): Double
 @Deprecated("Use kotlin.math.pow instead.", ReplaceWith("base.pow(exp)", "kotlin.math.pow"), level = DeprecationLevel.ERROR)
 public fun pow(base: Double, exp: Double): Double
 @Deprecated("Use kotlin.math.round instead.", ReplaceWith("round(value)", "kotlin.math.round"), level = DeprecationLevel.ERROR)
 public fun round(value: Number): Int
 @Deprecated("Use kotlin.math.floor instead.", ReplaceWith("floor(value)", "kotlin.math.floor"), level = DeprecationLevel.ERROR)
 public fun floor(value: Number): Int
 @Deprecated("Use kotlin.math.ceil instead.", ReplaceWith("ceil(value)", "kotlin.math.ceil"), level = DeprecationLevel.ERROR)
 public fun ceil(value: Number): Int
 @PublishedApi
 internal fun trunc(value: Number): Double
 @PublishedApi
 internal fun sign(value: Number): Double
 @PublishedApi
 internal fun sinh(value: Double): Double
 @PublishedApi
 internal fun cosh(value: Double): Double
 @PublishedApi
 internal fun tanh(value: Double): Double
 @PublishedApi
 internal fun asinh(value: Double): Double
 @PublishedApi
 internal fun acosh(value: Double): Double
 @PublishedApi
 internal fun atanh(value: Double): Double
 @PublishedApi
 internal fun hypot(x: Double, y: Double): Double
 @PublishedApi
 internal fun expm1(value: Double): Double
 @PublishedApi
 internal fun log10(value: Double): Double
 @PublishedApi
 internal

```

```

fun log2(value: Double): Double @PublishedApi internal fun log1p(value: Double): Double
@PublishedApi internal fun clz32(value: Int): Int
*/ Returns the smaller of two values.
*/ @Suppress("DEPRECATION") @Deprecated("Use minOf or kotlin.math.min instead",
ReplaceWith("minOf(a, b)"), level = DeprecationLevel.ERROR)
public fun Math.min(a: Long, b: Long): Long
= if (a <= b) a else b
*/ Returns the greater of two values.
*/ @Suppress("DEPRECATION") @Deprecated("Use maxOf or kotlin.math.max instead",
ReplaceWith("maxOf(a, b)"), level = DeprecationLevel.ERROR)
public fun Math.max(a: Long, b: Long): Long
= if (a >= b) a else b
"/
*/ Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.
*/ Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.
*/ package kotlin.js
*/ An interface for indexing access to a
collection of key-value pairs, where type of key is [String] and type of value is [Any?][Any].
*/ public
external interface Json {
    /**
     * Calls to the function will be translated to indexing operation (square
brackets) on the receiver with [propertyName] as the argument.
     *
     * E.g. for next code:
     *
     * kotlin
     * fun test(j: Json, p: String) = j["prop"] + j.get(p)
     *
     * will be generated:
     *
     * js
     * function test(j, p) {
     *     return j["prop"] + j[p];
     * }
     *
     * operator fun
get(propertyName: String): Any?
     */
    /**
     * Calls of the function will be translated to an assignment of
[value] to the receiver indexed (with square brackets/index operation) with [propertyName].
     *
     * E.g. for
the following code:
     *
     * kotlin
     * fun test(j: Json, p: String, newValue: Any) {
     *     j["prop"] =
1
     *     j.set(p, newValue)
     * }
     *
     * will be generated:
     *
     * js
     * function
test(j, p, newValue) {
     *     j["prop"] = 1;
     *     j[p] = newValue;
     * }
     *
     * operator fun
set(propertyName: String, value: Any?): Unit
     */
    /**
     * Returns a simple JavaScript
object (as [Json]) using provided key-value pairs as names and values of its properties.
     */
    public fun
json(vararg pairs: Pair<String, Any?>): Json {
        val res: dynamic = js("{}")
        for ((name, value) in pairs)
        {
            res[name] = value
        }
        return res
    }
}
*/ Adds key-value pairs from [other] to
[this].
*/ Returns the original receiver.
*/ public fun
Json.add(other: Json): Json {
    val keys:
Array<String> = js("Object").keys(other)
    for (key in keys) {
        if
(other.asDynamic().hasOwnProperty(key)) {
            this[key] = other[key];
        }
    }
    return
this
}
}
*/ Exposes the JavaScript [JSON object](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/JSON) to Kotlin.
*/
*/ @Suppress("NOT_DOCUMENTED") public external object JSON {
    public fun stringify(o: Any?):
String
    public fun stringify(o: Any?, replacer: ((key: String, value: Any?) -> Any?): String)
    public fun
stringify(o: Any?, replacer: ((key: String, value: Any?) -> Any?)? = definedExternally, space: Int):
String
    public fun
stringify(o: Any?, replacer: ((key: String, value: Any?) -> Any?)? = definedExternally, space: String):
String
    public fun
stringify(o: Any?, replacer: Array<String>): String
    public fun
stringify(o: Any?, replacer: Array<String>, space: Int): String
    public fun
stringify(o: Any?, replacer: Array<String>, space:
String): String
    public fun
<T> parse(text: String): T
    public fun
<T> parse(text: String, reviver: ((key:
String, value: Any?) -> Any?): T): T
"/
*/ Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.
*/ Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.
*/ @file:Suppress("DEPRECATION", "DEPRECATION_ERROR")
package
kotlin.math
*/ import kotlin.internal.InlineOnly
*/ import kotlin.js.Math as nativeMath
*/ region
===== Double Math =====
*/ Computes
the sine of the angle [x] given in radians.
*/
*/ Special cases:
- sin(NaN|+Inf|-Inf) is NaN
*/
*/ @SinceKotlin("1.2") @InlineOnly public actual inline fun sin(x: Double): Double =
nativeMath.sin(x)
*/ Computes the cosine of the angle [x] given in radians.
*/
*/ Special cases:
- cos(NaN|+Inf|-Inf) is NaN
*/
*/ @SinceKotlin("1.2") @InlineOnly public actual inline fun cos(x:
Double): Double = nativeMath.cos(x)
*/ Computes the tangent of the angle [x] given in radians.
*/
*/ Special cases:
- tan(NaN|+Inf|-Inf) is NaN
*/
*/ @SinceKotlin("1.2") @InlineOnly public
actual inline fun tan(x: Double): Double = nativeMath.tan(x)
*/ Computes the arc sine of the value

```

[x]; the returned value is an angle in the range from  $-\pi/2$  to  $\pi/2$  radians. Special cases:  $\text{asin}(\text{NaN})$  is  $\text{NaN}$ , when  $|\text{asin}(x)| > \pi/2$  or  $x$  is  $\text{NaN}$ .

```

@SinceKotlin("1.2")@InlineOnly@JvmPublic actual inline fun asin(x: Double): Double = nativeMath.asin(x)

```

Computes the arc cosine of the value [x]. The returned value is an angle in the range from  $0.0$  to  $\pi$  radians. Special cases:  $\text{acos}(\text{NaN})$  is  $\text{NaN}$ , when  $|\text{acos}(x)| > \pi$  or  $x$  is  $\text{NaN}$ .

```

@SinceKotlin("1.2")@InlineOnly@JvmPublic actual inline fun acos(x: Double): Double = nativeMath.acos(x)

```

Computes the arc tangent of the value [x]. The returned value is an angle in the range from  $-\pi/2$  to  $\pi/2$  radians. Special cases:  $\text{atan}(\text{NaN})$  is  $\text{NaN}$ .

```

@SinceKotlin("1.2")@InlineOnly@JvmPublic actual inline fun atan(x: Double): Double = nativeMath.atan(x)

```

Returns the angle  $\theta$  of the polar coordinates  $(r, \theta)$  that correspond to the rectangular coordinates  $(x, y)$  by computing the arc tangent of the value  $y / x$ . The returned value is an angle in the range from  $-\pi$  to  $\pi$  radians. Special cases:  $\text{atan2}(0.0, 0.0)$  is  $0.0$ .

```

@SinceKotlin("1.2")@InlineOnly@JvmPublic actual inline fun atan2(y: Double, x: Double): Double = nativeMath.atan2(y, x)

```

Computes the hyperbolic sine of the value [x]. Special cases:  $\text{sinh}(\text{NaN})$  is  $\text{NaN}$ ,  $\text{sinh}(+\infty)$  is  $+\infty$ ,  $\text{sinh}(-\infty)$  is  $-\infty$ .

```

@SinceKotlin("1.2")@InlineOnly@JvmPublic actual inline fun sinh(x: Double): Double = nativeMath.sinh(x)

```

Computes the hyperbolic cosine of the value [x]. Special cases:  $\text{cosh}(\text{NaN})$  is  $\text{NaN}$ ,  $\text{cosh}(+\infty)$  is  $+\infty$ .

```

@SinceKotlin("1.2")@InlineOnly@JvmPublic actual inline fun cosh(x: Double): Double = nativeMath.cosh(x)

```

Computes the hyperbolic tangent of the value [x]. Special cases:  $\text{tanh}(\text{NaN})$  is  $\text{NaN}$ ,  $\text{tanh}(+\infty)$  is  $1.0$ ,  $\text{tanh}(-\infty)$  is  $-1.0$ .

```

@SinceKotlin("1.2")@InlineOnly@JvmPublic actual inline fun tanh(x: Double): Double = nativeMath.tanh(x)

```

Computes the inverse hyperbolic sine of the value [x]. The returned value is  $y$  such that  $\text{sinh}(y) == x$ . Special cases:  $\text{asinh}(\text{NaN})$  is  $\text{NaN}$ ,  $\text{asinh}(+\infty)$  is  $+\infty$ ,  $\text{asinh}(-\infty)$  is  $-\infty$ .

```

@SinceKotlin("1.2")@InlineOnly@JvmPublic actual inline fun asinh(x: Double): Double = nativeMath.asinh(x)

```

Computes the inverse hyperbolic cosine of the value [x]. The returned value is positive  $y$  such that  $\text{cosh}(y) == x$ . Special cases:  $\text{acosh}(\text{NaN})$  is  $\text{NaN}$ ,  $\text{acosh}(x)$  is  $\text{NaN}$  when  $x < 1$ ,  $\text{acosh}(+\infty)$  is  $+\infty$ .

```

@SinceKotlin("1.2")@InlineOnly@JvmPublic actual inline fun acosh(x: Double): Double = nativeMath.acosh(x)

```

Computes the inverse hyperbolic tangent of the value [x]. The returned value is  $y$  such that  $\text{tanh}(y) == x$ . Special cases:  $\text{atanh}(\text{NaN})$  is  $\text{NaN}$ ,  $\text{atanh}(x)$  is  $\text{NaN}$  when  $|x| > 1$ ,  $\text{atanh}(1.0)$  is  $+\infty$ ,  $\text{atanh}(-1.0)$  is  $-\infty$ .

```

@SinceKotlin("1.2")@InlineOnly@JvmPublic actual inline fun atanh(x: Double): Double = nativeMath.atanh(x)

```

Computes  $\sqrt{x^2 + y^2}$  without intermediate overflow or underflow. Special cases: returns  $+\infty$  if any of arguments is infinite, returns  $\text{NaN}$  if any of arguments is  $\text{NaN}$  and the other is not infinite.

```

@SinceKotlin("1.2")@InlineOnly@JvmPublic actual inline fun hypot(x: Double, y: Double): Double = nativeMath.hypot(x, y)

```

Computes the positive square root of the value [x]. Special cases:  $\sqrt{x}$  is  $\text{NaN}$  when  $x < 0$  or  $x$  is  $\text{NaN}$ .

```

@SinceKotlin("1.2")@InlineOnly@JvmPublic actual inline fun sqrt(x: Double): Double = nativeMath.sqrt(x)

```

Computes Euler's number  $e$  raised to the power of the value [x]. Special cases:  $\text{exp}(\text{NaN})$  is  $\text{NaN}$ ,  $\text{exp}(+\infty)$  is  $+\infty$ ,  $\text{exp}(-\infty)$  is  $0.0$ .

```

@SinceKotlin("1.2")@InlineOnly@JvmPublic actual inline fun exp(x: Double): Double = nativeMath.exp(x)

```

Computes  $\text{exp}(x) - 1$ . This function can be implemented to produce more precise result for [x] near zero. Special cases:  $\text{expm1}(\text{NaN})$  is  $\text{NaN}$ ,  $\text{expm1}(+\infty)$  is  $+\infty$ ,  $\text{expm1}(-\infty)$  is  $-1.0$ . @see [exp] function.

```

@SinceKotlin("1.2")@InlineOnly@JvmPublic actual inline fun expm1(x: Double): Double = nativeMath.expm1(x)

```

`nativeMath.expm1(x)` Computes the logarithm of the value [x] to the given [base].  
 Special cases: `-log(x, b)` is `NaN` if either `x` or `b` are `NaN`. `-log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`. `-log(+Inf, +Inf)` is `NaN`. `-log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`. `-log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`. See also logarithm functions for common fixed bases: `[ln]`, `[log10]` and `[log2]`.  
 @SinceKotlin("1.2")  
 public actual fun log(x: Double, base: Double): Double {  
 if (base <= 0.0 || base == 1.0) return Double.NaN  
 return nativeMath.log(x) /  
 nativeMath.log(base)  
 }  
 Computes the natural logarithm (base `E`) of the value [x].  
 Special cases: `-ln(NaN)` is `NaN`. `-ln(x)` is `NaN` when `x < 0.0`. `-ln(+Inf)` is `+Inf`. `-ln(0.0)` is `-Inf`.  
 @SinceKotlin("1.2")  
 @InlineOnly  
 public actual inline fun ln(x: Double): Double = nativeMath.log(x)  
 Computes the common logarithm (base 10) of the value [x].  
 @see `[ln]` function for special cases.  
 @SinceKotlin("1.2")  
 @InlineOnly  
 public actual inline fun log10(x: Double): Double = nativeMath.log10(x)  
 Computes the binary logarithm (base 2) of the value [x].  
 @see `[ln]` function for special cases.  
 @SinceKotlin("1.2")  
 @InlineOnly  
 public actual inline fun log2(x: Double): Double = nativeMath.log2(x)  
 Computes `ln(x + 1)`.  
 This function can be implemented to produce more precise result for [x] near zero.  
 Special cases: `-ln1p(NaN)` is `NaN`. `-ln1p(x)` is `NaN` where `x < -1.0`. `-ln1p(-1.0)` is `-Inf`. `-ln1p(+Inf)` is `+Inf`.  
 @see `[ln]` function  
 @see `[expm1]` function  
 @SinceKotlin("1.2")  
 @InlineOnly  
 public actual inline fun ln1p(x: Double): Double = nativeMath.log1p(x)  
 Rounds the given value [x] to an integer towards positive infinity.  
 @return the smallest double value that is greater than or equal to the given value [x] and is a mathematical integer.  
 Special cases: `-ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.  
 @SinceKotlin("1.2")  
 @InlineOnly  
 public actual inline fun ceil(x: Double): Double = nativeMath.ceil(x).unsafeCast<Double>() // TODO: Remove unsafe cast after removing public js.math  
 Rounds the given value [x] to an integer towards negative infinity.  
 @return the largest double value that is smaller than or equal to the given value [x] and is a mathematical integer.  
 Special cases: `-floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.  
 @SinceKotlin("1.2")  
 @InlineOnly  
 public actual inline fun floor(x: Double): Double = nativeMath.floor(x).unsafeCast<Double>()  
 Rounds the given value [x] to an integer towards zero.  
 @return the value [x] having its fractional part truncated.  
 Special cases: `-truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.  
 @SinceKotlin("1.2")  
 @InlineOnly  
 public actual inline fun truncate(x: Double): Double = nativeMath.trunc(x)  
 Rounds the given value [x] towards the closest integer with ties rounded towards even integer.  
 Special cases: `-round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.  
 @SinceKotlin("1.2")  
 public actual fun round(x: Double): Double {  
 if (x % 0.5 != 0.0) {  
 return nativeMath.round(x).unsafeCast<Double>()  
 }  
 val floor = floor(x)  
 return if (floor % 2 == 0.0) floor else ceil(x)  
 }  
 Returns the absolute value of the given value [x].  
 Special cases: `-abs(NaN)` is `NaN`.  
 @see `absoluteValue` extension property for `[Double]`.  
 @SinceKotlin("1.2")  
 @InlineOnly  
 public actual inline fun abs(x: Double): Double = nativeMath.abs(x)  
 Returns the sign of the given value [x]: `-1.0` if the value is negative, `0.0` if the value is zero, `1.0` if the value is positive.  
 Special case: `-sign(NaN)` is `NaN`.  
 @SinceKotlin("1.2")  
 @InlineOnly  
 public actual inline fun sign(x: Double): Double = nativeMath.sign(x)  
 Returns the smaller of two values.  
 If either value is `NaN`, then the result is `NaN`.  
 @SinceKotlin("1.2")  
 @InlineOnly  
 public actual inline fun min(a: Double, b: Double): Double = nativeMath.min(a, b)  
 Returns the greater of two values.  
 If either value is `NaN`, then the result is `NaN`.  
 @SinceKotlin("1.2")  
 @InlineOnly  
 public actual inline fun max(a: Double, b: Double): Double = nativeMath.max(a, b)  
 // extensions  
 Raises this value to the power [x].  
 Special cases: `-b.pow(0.0)` is `1.0`. `-b.pow(1.0) == b`. `-b.pow(NaN)` is `NaN`. `-NaN.pow(x)` is `NaN` for `x != 0.0`. `-b.pow(Inf)` is `NaN` for `abs(b) == 1.0`. `-b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an integer.

```

*@\r\n@SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun Double.pow(x: Double): Double =
nativeMath.pow(this, x)\r\n\r\n**\r\n * Raises this value to the integer power [n].\r\n * See the other overload
of [pow] for details.\r\n *@\r\n@SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun Double.pow(n: Int):
Double = nativeMath.pow(this, n.toDouble())\r\n\r\n**\r\n * Returns the absolute value of this value.\r\n *
Special cases:\r\n * - `NaN.absoluteValue` is `NaN`\r\n * @see abs function\r\n
*@\r\n@SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline val Double.absoluteValue: Double get() =
nativeMath.abs(this)\r\n\r\n**\r\n * Returns the sign of this value:\r\n * - `1.0` if the value is negative,\r\n * -
zero if the value is zero,\r\n * - `1.0` if the value is positive\r\n * Special case:\r\n * - `NaN.sign` is
`NaN`\r\n *@\r\n@SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline val Double.sign: Double get() =
nativeMath.sign(this)\r\n\r\n**\r\n * Returns this value with the sign bit same as of the [sign] value.\r\n
*@\r\n@SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun Double.withSign(sign: Int): Double =
this.withSign(sign.toDouble())\r\n\r\n**\r\n * Returns the ulp (unit in the last place) of this value.\r\n * An ulp
is a positive distance between this value and the next nearest [Double] value larger in magnitude.\r\n * Special
Cases:\r\n * - `NaN.ulp` is `NaN`\r\n * - `x.ulp` is `+Inf` when `x` is `+Inf` or `-Inf`\r\n * - `0.0.ulp` is
`Double.MIN_VALUE`\r\n *@\r\n@SinceKotlin("1.2")\r\npublic actual val Double.ulp: Double get() = when {\r\n
this < 0 -> (-this).ulp\r\n this.isNaN() || this == Double.POSITIVE_INFINITY -> this\r\n this ==
Double.MAX_VALUE -> this - this.nextDown()\r\n else -> this.nextUp() - this\r\n}\r\n\r\n**\r\n * Returns the
[Double] value nearest to this value in direction of positive infinity.\r\n *@\r\n@SinceKotlin("1.2")\r\npublic actual
fun Double.nextUp(): Double = when {\r\n this.isNaN() || this == Double.POSITIVE_INFINITY -> this\r\n this
== 0.0 -> Double.MIN_VALUE\r\n else -> Double.fromBits(this.toRawBits() + if (this > 0) 1 else -
1)\r\n}\r\n\r\n**\r\n * Returns the [Double] value nearest to this value in direction of negative infinity.\r\n
*@\r\n@SinceKotlin("1.2")\r\npublic actual fun Double.nextDown(): Double = when {\r\n this.isNaN() || this ==
Double.NEGATIVE_INFINITY -> this\r\n this == 0.0 -> -Double.MIN_VALUE\r\n else ->
Double.fromBits(this.toRawBits() + if (this > 0) -1 else 1)\r\n}\r\n\r\n**\r\n * Returns the [Double] value
nearest to this value in direction from this value towards the value [to].\r\n * Special cases:\r\n * -
`x.nextTowards(y)` is `NaN` if either `x` or `y` are `NaN`\r\n * - `x.nextTowards(x) == x`\r\n
*@\r\n@SinceKotlin("1.2")\r\npublic actual fun Double.nextTowards(to: Double): Double = when {\r\n
this.isNaN() || to.isNaN() -> Double.NaN\r\n to == this -> to\r\n to > this -> this.nextUp()\r\n else /* to < this
*/ -> this.nextDown()\r\n}\r\n\r\n**\r\n * Rounds this [Double] value to the nearest integer and converts the
result to [Int].\r\n * Ties are rounded towards positive infinity.\r\n * Special cases:\r\n * - `x.roundToInt() ==
Int.MAX_VALUE` when `x > Int.MAX_VALUE`\r\n * - `x.roundToInt() == Int.MIN_VALUE` when `x <
Int.MIN_VALUE`\r\n * @throws IllegalArgumentException` when this value is `NaN`\r\n
*@\r\n@SinceKotlin("1.2")\r\npublic actual fun Double.roundToInt(): Int = when {\r\n isNaN() -> throw
IllegalArgumentException("Cannot round NaN value.")\r\n this > Int.MAX_VALUE -> Int.MAX_VALUE\r\n
this < Int.MIN_VALUE -> Int.MIN_VALUE\r\n else ->
nativeMath.round(this).unsafeCast<Double>().toInt()\r\n}\r\n\r\n**\r\n * Rounds this [Double] value to the nearest
integer and converts the result to [Long].\r\n * Ties are rounded towards positive infinity.\r\n * Special
cases:\r\n * - `x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE`\r\n * -
`x.roundToLong() == Long.MIN_VALUE` when `x < Long.MIN_VALUE`\r\n * @throws
IllegalArgumentException` when this value is `NaN`\r\n *@\r\n@SinceKotlin("1.2")\r\npublic actual fun
Double.roundToLong(): Long = when {\r\n isNaN() -> throw IllegalArgumentException("Cannot round NaN
value.")\r\n this > Long.MAX_VALUE -> Long.MAX_VALUE\r\n this < Long.MIN_VALUE ->
Long.MIN_VALUE\r\n else -> nativeMath.round(this).unsafeCast<Double>().toLong()\r\n}\r\n\r\n//
endregion\r\n\r\n\r\n// region ===== Float Math
=====
\r\n\r\n** Computes the sine of the angle [x] given in
radians.\r\n * Special cases:\r\n * - `sin(NaN|+Inf|-Inf)` is `NaN`\r\n
*@\r\n@SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun sin(x: Float): Float =
nativeMath.sin(x.toDouble()).toFloat()\r\n\r\n** Computes the cosine of the angle [x] given in radians.\r\n *

```

Special cases:  $\cos(\text{NaN}|\pm\text{Inf}|\text{Inf})$  is  $\text{NaN}$

actual inline fun `cos(x: Float): Float = nativeMath.cos(x.toDouble()).toFloat()`

Computes the tangent of the angle [x] given in radians.

Special cases:  $\tan(\text{NaN}|\pm\text{Inf}|\text{Inf})$  is  $\text{NaN}$

actual inline fun `tan(x: Float): Float = nativeMath.tan(x.toDouble()).toFloat()`

Computes the arc sine of the value [x]; the returned value is an angle in the range from  $-\text{PI}/2$  to  $\text{PI}/2$  radians.

Special cases:  $\sin(x)$  is  $\text{NaN}$ , when  $|\text{abs}(x)| > 1$  or x is  $\text{NaN}$

actual inline fun `asin(x: Float): Float = nativeMath.asin(x.toDouble()).toFloat()`

Computes the arc cosine of the value [x]; the returned value is an angle in the range from  $0.0$  to  $\text{PI}$  radians.

Special cases:  $\cos(x)$  is  $\text{NaN}$ , when  $|\text{abs}(x)| > 1$  or x is  $\text{NaN}$

actual inline fun `acos(x: Float): Float = nativeMath.acos(x.toDouble()).toFloat()`

Computes the arc tangent of the value [x]; the returned value is an angle in the range from  $-\text{PI}/2$  to  $\text{PI}/2$  radians.

Special cases:  $\text{atan}(\text{NaN})$  is  $\text{NaN}$

actual inline fun `atan(x: Float): Float = nativeMath.atan(x.toDouble()).toFloat()`

Returns the angle  $\theta$  of the polar coordinates  $(r, \theta)$  that correspond to the rectangular coordinates  $(x, y)$  by computing the arc tangent of the value  $y/x$ ; the returned value is an angle in the range from  $-\text{PI}$  to  $\text{PI}$  radians.

Special cases:  $\text{atan2}(0.0, 0.0)$  is  $0.0$ ;  $\text{atan2}(0.0, x)$  is  $0.0$  for  $x > 0$  and  $\text{PI}$  for  $x < 0$ ;  $\text{atan2}(-0.0, x)$  is  $-0.0$  for  $x > 0$  and  $-\text{PI}$  for  $x < 0$ ;  $\text{atan2}(y, +\text{Inf})$  is  $0.0$  for  $0 < y < +\text{Inf}$  and  $-0.0$  for  $-\text{Inf} < y < 0$ ;  $\text{atan2}(y, -\text{Inf})$  is  $\text{PI}$  for  $0 < y < +\text{Inf}$  and  $-\text{PI}$  for  $-\text{Inf} < y < 0$ ;  $\text{atan2}(y, 0.0)$  is  $\text{PI}/2$  for  $y > 0$  and  $-\text{PI}/2$  for  $y < 0$ ;  $\text{atan2}(+\text{Inf}, x)$  is  $\text{PI}/2$  for finite  $x$ ;  $\text{atan2}(-\text{Inf}, x)$  is  $-\text{PI}/2$  for finite  $x$ ;  $\text{atan2}(\text{NaN}, x)$  and  $\text{atan2}(y, \text{NaN})$  is  $\text{NaN}$

actual inline fun `atan2(y: Float, x: Float): Float = nativeMath.atan2(y.toDouble(), x.toDouble()).toFloat()`

Computes the hyperbolic sine of the value [x].

Special cases:  $\sinh(\text{NaN})$  is  $\text{NaN}$ ;  $\sinh(+\text{Inf})$  is  $+\text{Inf}$ ;  $\sinh(-\text{Inf})$  is  $-\text{Inf}$

actual inline fun `sinh(x: Float): Float = nativeMath.sinh(x.toDouble()).toFloat()`

Computes the hyperbolic cosine of the value [x].

Special cases:  $\cosh(\text{NaN})$  is  $\text{NaN}$ ;  $\cosh(+\text{Inf}|\text{Inf})$  is  $+\text{Inf}$

actual inline fun `cosh(x: Float): Float = nativeMath.cosh(x.toDouble()).toFloat()`

Computes the hyperbolic tangent of the value [x].

Special cases:  $\tanh(\text{NaN})$  is  $\text{NaN}$ ;  $\tanh(+\text{Inf})$  is  $1.0$ ;  $\tanh(-\text{Inf})$  is  $-1.0$

actual inline fun `tanh(x: Float): Float = nativeMath.tanh(x.toDouble()).toFloat()`

Computes the inverse hyperbolic sine of the value [x].

The returned value is  $y$  such that  $\sinh(y) == x$ .

Special cases:  $\text{asinh}(\text{NaN})$  is  $\text{NaN}$ ;  $\text{asinh}(+\text{Inf})$  is  $+\text{Inf}$ ;  $\text{asinh}(-\text{Inf})$  is  $-\text{Inf}$

actual inline fun `asinh(x: Float): Float = nativeMath.asinh(x.toDouble()).toFloat()`

Computes the inverse hyperbolic cosine of the value [x].

The returned value is positive  $y$  such that  $\cosh(y) == x$ .

Special cases:  $\text{acosh}(\text{NaN})$  is  $\text{NaN}$ ;  $\text{acosh}(x)$  is  $\text{NaN}$  when  $x < 1$ ;  $\text{acosh}(+\text{Inf})$  is  $+\text{Inf}$

actual inline fun `acosh(x: Float): Float = nativeMath.acosh(x.toDouble()).toFloat()`

Computes the inverse hyperbolic tangent of the value [x].

The returned value is  $y$  such that  $\tanh(y) == x$ .

Special cases:  $\text{atanh}(\text{NaN})$  is  $\text{NaN}$ ;  $\text{atanh}(x)$  is  $\text{NaN}$  when  $|x| > 1$  or  $x < -1$ ;  $\text{atanh}(1.0)$  is  $+\text{Inf}$ ;  $\text{atanh}(-1.0)$  is  $-\text{Inf}$

actual inline fun `atanh(x: Float): Float = nativeMath.atanh(x.toDouble()).toFloat()`

Computes  $\sqrt{x^2 + y^2}$  without intermediate overflow or underflow.

Special cases: returns  $+\text{Inf}$  if any of arguments is infinite; returns  $\text{NaN}$  if any of arguments is  $\text{NaN}$  and the other is not infinite

actual inline fun `hypot(x: Float, y: Float): Float = nativeMath.hypot(x.toDouble(), y.toDouble()).toFloat()`

Computes the positive square root of the value [x].

Special cases:  $\sqrt{x}$  is  $\text{NaN}$  when  $x < 0$  or  $x$  is  $\text{NaN}$

`@SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun sqrt(x: Float): Float = nativeMath.sqrt(x.toDouble()).toFloat()\r\n\r\n**\r\n * Computes Euler's number `e` raised to the power of the value [x].\r\n * Special cases:\r\n * - `exp(NaN)` is `NaN`\r\n * - `exp(+Inf)` is `+Inf`\r\n * - `exp(-Inf)` is `0.0`\r\n * @SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun exp(x: Float): Float = nativeMath.exp(x.toDouble()).toFloat()\r\n\r\n**\r\n * Computes `exp(x) - 1`.\r\n * This function can be implemented to produce more precise result for [x] near zero.\r\n * Special cases:\r\n * - `expm1(NaN)` is `NaN`\r\n * - `expm1(+Inf)` is `+Inf`\r\n * - `expm1(-Inf)` is `-1.0`\r\n * @see [exp] function.\r\n * @SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun expm1(x: Float): Float = nativeMath.expm1(x.toDouble()).toFloat()\r\n\r\n**\r\n * Computes the logarithm of the value [x] to the given [base].\r\n * Special cases:\r\n * - `log(x, b)` is `NaN` if either `x` or `b` are `NaN`\r\n * - `log(x, b)` is `NaN` when `x < 0` or `b <= 0` or `b == 1.0`\r\n * - `log(+Inf, +Inf)` is `NaN`\r\n * - `log(+Inf, b)` is `+Inf` for `b > 1` and `-Inf` for `b < 1`\r\n * - `log(0.0, b)` is `-Inf` for `b > 1` and `+Inf` for `b > 1`\r\n * See also logarithm functions for common fixed bases: [ln], [log10] and [log2].\r\n * @SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun log(x: Float, base: Float): Float = log(x.toDouble(), base.toDouble()).toFloat()\r\n\r\n**\r\n * Computes the natural logarithm (base `E`) of the value [x].\r\n * Special cases:\r\n * - `ln(NaN)` is `NaN`\r\n * - `ln(x)` is `NaN` when `x < 0.0`\r\n * - `ln(+Inf)` is `+Inf`\r\n * - `ln(0.0)` is `-Inf`\r\n * @SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun ln(x: Float): Float = nativeMath.log(x.toDouble()).toFloat()\r\n\r\n**\r\n * Computes the common logarithm (base 10) of the value [x].\r\n * @see [ln] function for special cases.\r\n * @SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun log10(x: Float): Float = nativeMath.log10(x.toDouble()).toFloat()\r\n\r\n**\r\n * Computes the binary logarithm (base 2) of the value [x].\r\n * @see [ln] function for special cases.\r\n * @SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun log2(x: Float): Float = nativeMath.log2(x.toDouble()).toFloat()\r\n\r\n**\r\n * Computes `ln(a + 1)`.\r\n * This function can be implemented to produce more precise result for [x] near zero.\r\n * Special cases:\r\n * - `ln1p(NaN)` is `NaN`\r\n * - `ln1p(x)` is `NaN` where `x < -1.0`\r\n * - `ln1p(-1.0)` is `-Inf`\r\n * - `ln1p(+Inf)` is `+Inf`\r\n * @see [ln] function\r\n * @see [expm1] function\r\n * @SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun ln1p(x: Float): Float = nativeMath.log1p(x.toDouble()).toFloat()\r\n\r\n**\r\n * Rounds the given value [x] to an integer towards positive infinity.\r\n * @return the smallest Float value that is greater than or equal to the given value [x] and is a mathematical integer.\r\n * Special cases:\r\n * - `ceil(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\r\n * @SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun ceil(x: Float): Float = nativeMath.ceil(x.toDouble()).toFloat()\r\n\r\n**\r\n * Rounds the given value [x] to an integer towards negative infinity.\r\n * @return the largest Float value that is smaller than or equal to the given value [x] and is a mathematical integer.\r\n * Special cases:\r\n * - `floor(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\r\n * @SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun floor(x: Float): Float = nativeMath.floor(x.toDouble()).toFloat()\r\n\r\n**\r\n * Rounds the given value [x] to an integer towards zero.\r\n * @return the value [x] having its fractional part truncated.\r\n * Special cases:\r\n * - `truncate(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\r\n * @SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun truncate(x: Float): Float = truncate(x.toDouble()).toFloat()\r\n\r\n**\r\n * Rounds the given value [x] towards the closest integer with ties rounded towards even integer.\r\n * Special cases:\r\n * - `round(x)` is `x` where `x` is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.\r\n * @SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun round(x: Float): Float = round(x.toDouble()).toFloat()\r\n\r\n**\r\n * Returns the absolute value of the given value [x].\r\n * Special cases:\r\n * - `abs(NaN)` is `NaN`\r\n * @see absoluteValue extension property for [Float]\r\n * @SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun abs(x: Float): Float = nativeMath.abs(x.toDouble()).toFloat()\r\n\r\n**\r\n * Returns the sign of the given value [x]:\r\n * - `1.0` if the value is negative,\r\n * - zero if the value is zero,\r\n * - `1.0` if the value is positive\r\n * Special case:\r\n * - `sign(NaN)` is `NaN`\r\n * @SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline fun sign(x: Float):`



actual fun abs(n: Long): Long = if (n < 0) -n else n\r\n\r\n\r\n\*\*\r\n \* Returns the smaller of two values.\r\n

\*\r\n@SinceKotlin("1.2")\r\n@Suppress("NOTHING\_TO\_INLINE")\r\npublic actual inline fun min(a: Long, b: Long): Long = if (a <= b) a else b\r\n\r\n\r\n\*\*\r\n \* Returns the greater of two values.\r\n

\*\r\n@SinceKotlin("1.2")\r\n@Suppress("NOTHING\_TO\_INLINE")\r\npublic actual inline fun max(a: Long, b: Long): Long = if (a >= b) a else b\r\n\r\n\r\n\*\*\r\n \* Returns the absolute value of this value.\r\n \* \r\n \* Special cases:\r\n \* - `Long.MIN\_VALUE.absoluteValue` is `Long.MIN\_VALUE` due to an overflow\r\n \* \r\n \* @see abs function\r\n \* \r\n@SinceKotlin("1.2")\r\n@InlineOnly\r\npublic actual inline val Long.absoluteValue: Long get() = abs(this)\r\n\r\n\r\n\*\*\r\n \* Returns the sign of this value:\r\n \* - -1 if the value is negative,\r\n \* - 0 if the value is zero,\r\n \* - 1 if the value is positive\r\n \* \r\n@SinceKotlin("1.2")\r\npublic actual val Long.sign: Int get() = when { \r\n this < 0 -> -1 \r\n this > 0 -> 1 \r\n else -> 0 \r\n } \r\n\r\n\r\n// endregion\r\n","/\*\*\r\n \* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n \* \r\n\r\npackage kotlin\r\n\r\n\r\n\*\*\r\n \* Returns `true` if the specified number is a\r\n \* Not-a-Number (NaN) value, `false` otherwise.\r\n \* \r\npublic actual fun Double.isNaN(): Boolean = this != this\r\n\r\n\r\n\*\*\r\n \* Returns `true` if the specified number is a\r\n \* Not-a-Number (NaN) value, `false` otherwise.\r\n \* \r\npublic actual fun Float.isNaN(): Boolean = this != this\r\n\r\n\r\n\*\*\r\n \* Returns `true` if this value is infinitely large in magnitude.\r\n \* \r\npublic actual fun Double.isInfinite(): Boolean = this == Double.POSITIVE\_INFINITY || this == Double.NEGATIVE\_INFINITY\r\n\r\n\r\n\*\*\r\n \* Returns `true` if this value is infinitely large in magnitude.\r\n \* \r\npublic actual fun Float.isInfinite(): Boolean = this == Float.POSITIVE\_INFINITY || this == Float.NEGATIVE\_INFINITY\r\n\r\n\r\n\*\*\r\n \* Returns `true` if the argument is a finite floating-point value; returns `false` otherwise (for `NaN` and infinity arguments).\r\n \* \r\npublic actual fun Double.isFinite(): Boolean = !isInfinite() && !isNaN()\r\n\r\n\r\n\*\*\r\n \* Returns `true` if the argument is a finite floating-point value; returns `false` otherwise (for `NaN` and infinity arguments).\r\n \* \r\npublic actual fun Float.isFinite(): Boolean = !isInfinite() && !isNaN()\r\n\r\n\r\n\r\n\*\*\r\n \* Counts the number of set bits in the binary representation of this [Int] number.\r\n \* \r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\npublic actual fun Int.countOneBits(): Int { \r\n // Hacker's Delight 5-1 algorithm \r\n var v = this \r\n v = (v and 0x55555555) + (v.ushr(1) and 0x55555555) \r\n v = (v and 0x33333333) + (v.ushr(2) and 0x33333333) \r\n v = (v and 0x0F0F0F0F) + (v.ushr(4) and 0x0F0F0F0F) \r\n v = (v and 0x00FF00FF) + (v.ushr(8) and 0x00FF00FF) \r\n v = (v and 0x0000FFFF) + (v.ushr(16)) \r\n return v \r\n } \r\n\r\n\r\n\*\*\r\n \* Counts the number of consecutive most significant bits that are zero in the binary representation of this [Int] number.\r\n \* \r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@Suppress("DEPRECATION")\r\n@kotlin.internal.InlineOnly\r\npublic actual inline fun Int.countLeadingZeroBits(): Int = kotlin.js.Math.clz32(this)\r\n\r\n\r\n\*\*\r\n \* Counts the number of consecutive least significant bits that are zero in the binary representation of this [Int] number.\r\n \* \r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\npublic actual fun Int.countTrailingZeroBits(): Int = \r\n // Hacker's Delight 5-4 algorithm for expressing countTrailingZeroBits with countLeadingZeroBits \r\n Int.SIZE\_BITS - (this or -this).inv().countLeadingZeroBits()\r\n\r\n\r\n\*\*\r\n \* Returns a number having a single bit set in the position of the most significant set bit of this [Int] number, \r\n \* or zero, if this number is zero.\r\n \* \r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\npublic actual fun Int.takeHighestOneBit(): Int = \r\n if (this == 0) 0 else 1.shl(Int.SIZE\_BITS - 1 - countLeadingZeroBits())\r\n\r\n\r\n\*\*\r\n \* Returns a number having a single bit set in the position of the least significant set bit of this [Int] number, \r\n \* or zero, if this number is zero.\r\n \* \r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\npublic actual fun Int.takeLowestOneBit(): Int = \r\n // Hacker's Delight 2-1 algorithm for isolating rightmost 1-bit \r\n this and -this\r\n\r\n\r\n\*\*\r\n \* Rotates the binary representation of this [Int] number left by the specified [bitCount] number of bits. \r\n \* The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side. \r\n \* Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count: \r\n \* `number.rotateLeft(-n) == number.rotateRight(n)` \r\n \* \r\n \* Rotating by a multiple of [Int.SIZE\_BITS] (32) returns the same number, or more generally \r\n \* `number.rotateLeft(n) == number.rotateLeft(n % 32)` \r\n

```

* Since Kotlin("1.3") ExperimentalStdlibApi public actual fun Int.rotateLeft(bitCount: Int): Int =
    shl(bitCount) or ushr(Int.SIZE_BITS - bitCount)
    * Rotates the binary representation of this [Int] number right by the specified [bitCount] number of bits.
    * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.
    * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:
    * `number.rotateRight(-n) == number.rotateLeft(n)`
    * Rotating by a multiple of [Int.SIZE_BITS] (32) returns the same number, or more generally
    * `number.rotateRight(n) == number.rotateRight(n % 32)`

* Since Kotlin("1.3") ExperimentalStdlibApi public actual fun Int.rotateRight(bitCount: Int): Int =
    shl(Int.SIZE_BITS - bitCount) or ushr(bitCount)
    * Counts the number of set bits in the binary representation of this [Long] number.

* Since Kotlin("1.3") ExperimentalStdlibApi public actual fun Long.countOneBits(): Int =
    high.countOneBits() + low.countOneBits()
    * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Long] number.

* Since Kotlin("1.3") ExperimentalStdlibApi public actual fun Long.countLeadingZeroBits(): Int =
    when (val high = this.high) {
        0 -> Int.SIZE_BITS + low.countLeadingZeroBits()
        else -> high.countLeadingZeroBits()
    }
    * Counts the number of consecutive least significant bits that are zero in the binary representation of this [Long] number.

* Since Kotlin("1.3") ExperimentalStdlibApi public actual fun Long.countTrailingZeroBits(): Int =
    when (val low = this.low) {
        0 -> Int.SIZE_BITS + high.countTrailingZeroBits()
        else -> low.countTrailingZeroBits()
    }
    * Returns a number having a single bit set in the position of the most significant set bit of this [Long] number,
    * or zero, if this number is zero.

* Since Kotlin("1.3") ExperimentalStdlibApi public actual fun Long.takeHighestOneBit(): Long =
    when (val high = this.high) {
        0 -> Long(low.takeHighestOneBit(), 0)
        else -> Long(0, high.takeHighestOneBit())
    }
    * Returns a number having a single bit set in the position of the least significant set bit of this [Long] number,
    * or zero, if this number is zero.

* Since Kotlin("1.3") ExperimentalStdlibApi public actual fun Long.takeLowestOneBit(): Long =
    when (val low = this.low) {
        0 -> Long(0, high.takeLowestOneBit())
        else -> Long(low.takeLowestOneBit(), 0)
    }
    * Rotates the binary representation of this [Long] number left by the specified [bitCount] number of bits.
    * The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side.
    * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count:
    * `number.rotateLeft(-n) == number.rotateRight(n)`
    * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally
    * `number.rotateLeft(n) == number.rotateLeft(n % 64)`

* Since Kotlin("1.3") ExperimentalStdlibApi public actual inline fun Long.rotateLeft(bitCount: Int): Long =
    if ((bitCount and 31) != 0) {
        val low = this.low
        val high = this.high
        val newLow = low.shl(bitCount) or high.ushr(-bitCount)
        val newHigh = high.shl(bitCount) or low.ushr(-bitCount)
        return if ((bitCount and 32) == 0) Long(newLow, newHigh) else Long(newHigh, newLow)
    } else {
        return if ((bitCount and 32) == 0) this else Long(high, low)
    }
    * Rotates the binary representation of this [Long] number right by the specified [bitCount] number of bits.
    * The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side.
    * Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count:
    * `number.rotateRight(-n) == number.rotateLeft(n)`
    * Rotating by a multiple of [Long.SIZE_BITS] (64) returns the same number, or more generally
    * `number.rotateRight(n) == number.rotateRight(n % 64)`

* Since Kotlin("1.3") ExperimentalStdlibApi @kotlin.internal.InlineOnly public actual inline fun Long.rotateRight(bitCount: Int): Long = rotateLeft(-bitCount)
    * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.
    * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.
    * Exposes the JavaScript [Promise object](https://developer.mozilla.org/en/docs/Web/JavaScript/Reference/Global_Objects/Promise) to Kotlin.

```



```

other.jClass\r\n } \r\n\r\n // TODO: use FQN\r\n override fun hashCode(): Int = simpleName?.hashCode() ?:
0\r\n\r\n override fun toString(): String { \r\n // TODO: use FQN\r\n return "\"class $simpleName\"" \r\n
} \r\n} \r\n\r\ninternal class SimpleKClassImpl<T : Any>(jClass: JsClass<T>) : KClassImpl<T>(jClass) { \r\n
override val simpleName: String? = jClass.asDynamic().`$metadata$`.simpleName.unsafeCast<String?>()\r\n\r\n
override fun isInstance(value: Any?): Boolean { \r\n return jsIsType(value, jClass)\r\n } \r\n} \r\n\r\ninternal
class PrimitiveKClassImpl<T : Any>(\r\n jClass: JsClass<T>, \r\n private val givenSimpleName: String, \r\n
private val isInstanceFunction: (Any?) -> Boolean\r\n) : KClassImpl<T>(jClass) { \r\n override fun equals(other:
Any?): Boolean { \r\n if (other !is PrimitiveKClassImpl<*>) return false\r\n return super.equals(other) &&
givenSimpleName == other.givenSimpleName\r\n } \r\n\r\n override val simpleName: String? get() =
givenSimpleName\r\n\r\n override fun isInstance(value: Any?): Boolean { \r\n return
isInstanceFunction(value)\r\n } \r\n} \r\n\r\ninternal object NothingKClassImpl :
KClassImpl<Nothing>(js("Object")) { \r\n override val simpleName: String = "Nothing" \r\n\r\n override fun
isInstance(value: Any?): Boolean = false\r\n\r\n override val jClass: JsClass<Nothing> \r\n get() = throw
UnsupportedOperationException("There's no native JS class for Nothing type")\r\n\r\n override fun equals(other:
Any?): Boolean = other === this\r\n\r\n override fun hashCode(): Int = 0\r\n} , /*\r\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors. \r\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file. \r\n */\r\n\r\npackage
kotlin.reflect.js.internal\r\n\r\nimport kotlin.js.JsClass\r\n\r\n@JsName("PrimitiveClasses")\r\n\r\ninternal object
PrimitiveClasses { \r\n @JsName("anyClass")\r\n val anyClass =
PrimitiveKClassImpl(js("Object").unsafeCast<JsClass<Any>>(), "Any", { it is Any })\r\n\r\n
@JsName("numberClass")\r\n val numberClass =
PrimitiveKClassImpl(js("Number").unsafeCast<JsClass<Number>>(), "Number", { it is Number })\r\n\r\n
@JsName("nothingClass")\r\n val nothingClass = NothingKClassImpl\r\n\r\n @JsName("booleanClass")\r\n
val booleanClass = PrimitiveKClassImpl(js("Boolean").unsafeCast<JsClass<Boolean>>(), "Boolean", { it is
Boolean })\r\n\r\n @JsName("byteClass")\r\n val byteClass =
PrimitiveKClassImpl(js("Number").unsafeCast<JsClass<Byte>>(), "Byte", { it is Byte })\r\n\r\n
@JsName("shortClass")\r\n val shortClass =
PrimitiveKClassImpl(js("Number").unsafeCast<JsClass<Short>>(), "Short", { it is Short })\r\n\r\n
@JsName("intClass")\r\n val intClass = PrimitiveKClassImpl(js("Number").unsafeCast<JsClass<Int>>(),
"Int", { it is Int })\r\n\r\n @JsName("floatClass")\r\n val floatClass =
PrimitiveKClassImpl(js("Number").unsafeCast<JsClass<Float>>(), "Float", { it is Float })\r\n\r\n
@JsName("doubleClass")\r\n val doubleClass =
PrimitiveKClassImpl(js("Number").unsafeCast<JsClass<Double>>(), "Double", { it is Double })\r\n\r\n
@JsName("arrayClass")\r\n val arrayClass =
PrimitiveKClassImpl(js("Array").unsafeCast<JsClass<Array<*>>>(), "Array", { it is Array<*> })\r\n\r\n
@JsName("stringClass")\r\n val stringClass =
PrimitiveKClassImpl(js("String").unsafeCast<JsClass<String>>(), "String", { it is String })\r\n\r\n
@JsName("throwableClass")\r\n val throwableClass =
PrimitiveKClassImpl(js("Error").unsafeCast<JsClass<Throwable>>(), "Throwable", { it is Throwable })\r\n\r\n
@JsName("booleanArrayClass")\r\n val booleanArrayClass =
PrimitiveKClassImpl(js("Array").unsafeCast<JsClass<BooleanArray>>(), "BooleanArray", { it is BooleanArray
})\r\n\r\n @JsName("charArrayClass")\r\n val charArrayClass =
PrimitiveKClassImpl(js("Uint16Array").unsafeCast<JsClass<CharArray>>(), "CharArray", { it is CharArray
})\r\n\r\n @JsName("byteArrayClass")\r\n val byteArrayClass =
PrimitiveKClassImpl(js("Int8Array").unsafeCast<JsClass<ByteArray>>(), "ByteArray", { it is ByteArray
})\r\n\r\n @JsName("shortArrayClass")\r\n val shortArrayClass =
PrimitiveKClassImpl(js("Int16Array").unsafeCast<JsClass<ShortArray>>(), "ShortArray", { it is ShortArray
})\r\n\r\n @JsName("intArrayClass")\r\n val intArrayClass =

```





```

numberFormatException(this)\r\n\r\n**\r\n * Parses the string as an [Int] number and returns the result.\r\n * @throws
NumberFormatException if the string is not a valid representation of a number.\r\n * @throws
IllegalArgumentExcepion when [radix] is not a valid radix for string to number conversion.\r\n */\r\npublic actual
fun String.toInt(radix: Int): Int = toIntOrNull(radix) ?: numberFormatException(this)\r\n\r\n**\r\n * Parses the string as
a [Long] number and returns the result.\r\n * @throws NumberFormatException if the string is not a valid
representation of a number.\r\n */\r\npublic actual fun String.toLong(): Long = toLongOrNull()
numberFormatException(this)\r\n\r\n**\r\n * Parses the string as a [Long] number and returns the result.\r\n * @throws
NumberFormatException if the string is not a valid representation of a number.\r\n * @throws
IllegalArgumentExcepion when [radix] is not a valid radix for string to number conversion.\r\n */\r\npublic actual
fun String.toLong(radix: Int): Long = toLongOrNull(radix) ?: numberFormatException(this)\r\n\r\n**\r\n * Parses the
string as a [Double] number and returns the result.\r\n * @throws NumberFormatException if the string is not a
valid representation of a number.\r\n */\r\npublic actual fun String.toDouble(): Double =
+(this.asDynamic()).unsafeCast<Double>().also {\r\n    if (it.isNaN() && !this.isNaN() || it == 0.0 &&
this.isBlank())\r\n        numberFormatException(this)\r\n}\r\n\r\n**\r\n * Parses the string as a [Float] number and
returns the result.\r\n * @throws NumberFormatException if the string is not a valid representation of a number.\r\n
*/\r\n@kotlin.internal.InlineOnly\r\npublic actual inline fun String.toFloat(): Float =
toDouble().unsafeCast<Float>()\r\n\r\n**\r\n * Parses the string as a [Double] number and returns the result\r\n * or
`null` if the string is not a valid representation of a number.\r\n */\r\npublic actual fun String.toDoubleOrNull():
Double? = +(this.asDynamic()).unsafeCast<Double>().takeIf {\r\n    !(it.isNaN() && !this.isNaN() || it == 0.0 &&
this.isBlank())\r\n}\r\n\r\n**\r\n * Parses the string as a [Float] number and returns the result\r\n * or `null` if the
string is not a valid representation of a number.\r\n */\r\n@kotlin.internal.InlineOnly\r\npublic actual inline fun
String.toFloatOrNull(): Float? = toDoubleOrNull().unsafeCast<Float?>()\r\n\r\n**\r\n * Returns a string
representation of this [Byte] value in the specified [radix].\r\n * @throws IllegalArgumentExcepion when
[radix] is not a valid radix for number to string conversion.\r\n
*/\r\n@SinceKotlin("1.2")\r\n@kotlin.internal.InlineOnly\r\npublic actual inline fun Byte.toString(radix: Int):
String = this.toInt().toString(radix)\r\n\r\n**\r\n * Returns a string representation of this [Short] value in the
specified [radix].\r\n * @throws IllegalArgumentExcepion when [radix] is not a valid radix for number to
string conversion.\r\n */\r\n@SinceKotlin("1.2")\r\n@kotlin.internal.InlineOnly\r\npublic actual inline fun
Short.toString(radix: Int): String = this.toInt().toString(radix)\r\n\r\n**\r\n * Returns a string representation of this
[Int] value in the specified [radix].\r\n * @throws IllegalArgumentExcepion when [radix] is not a valid radix
for number to string conversion.\r\n */\r\n@SinceKotlin("1.2")\r\npublic actual fun Int.toString(radix: Int): String =
asDynamic().toString(checkRadix(radix))\r\n\r\nprivate fun String.isNaN(): Boolean = when (this.toLowerCase())
{\r\n    "nan", "+nan", "-nan" -> true\r\n    else -> false\r\n}\r\n\r\n**\r\n * Checks whether the given [radix] is
valid radix for string to number and number to string conversion.\r\n */\r\n@PublishedApi\r\ninternal actual fun
checkRadix(radix: Int): Int {\r\n    if (radix !in 2..36) {\r\n        throw IllegalArgumentExcepion("\r\nradix $radix was
not in valid range 2..36")\r\n    }\r\n    return radix\r\n}\r\n\r\ninternal actual fun digitOf(char: Char, radix: Int): Int
= when {\r\n    char >= '0' && char <= '9' -> char - '0'\r\n    char >= 'A' && char <= 'Z' -> char - 'A' + 10\r\n    char
>= 'a' && char <= 'z' -> char - 'a' + 10\r\n    else -> -1\r\n}.let { if (it >= radix) -1 else it }\r\n\r\n", /*\r\n * Copyright
2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is
governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage
kotlin.text\r\n\r\nimport kotlin.js.RegExp\r\n\r\n**\r\n * Provides enumeration values to use to set regular
expression options.\r\n */\r\npublic actual enum class RegexOptions(val value: String) {\r\n    /** Enables case-
insensitive matching. */\r\n    IGNORE_CASE("i"),\r\n    /** Enables multiline mode. */\r\n    MULTILINE("m"),\r\n    /** In multiline
mode the expressions `^` and `$` match just after or just before, respectively, a line terminator or the end of
the input sequence. */\r\n    MULTILINE("m")\r\n}\r\n\r\n\r\n**\r\n * Represents the results from a single
capturing group within a [MatchResult] of [Regex].\r\n * @param value The value of captured group.\r\n
*/\r\npublic actual data class MatchGroup(actual val value: String)\r\n\r\n**\r\n * Represents a compiled regular
expression.\r\n * Provides functions to match strings in text with a pattern, replace the found occurrences and split

```

text around matches. For pattern syntax reference see [MDN RegExp](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global\_Objects/RegExp#Special\_characters\_meaning\_in\_regular\_expressions) and [http://www.w3schools.com/jsref/jsref\_obj\_regexp.asp](https://www.w3schools.com/jsref/jsref\_obj\_regexp.asp).

```

@constructor Creates a regular expression from the specified [pattern] string and the specified set of [options].
public actual class Regex actual constructor(pattern: String, options: Set<RegexOption>) {
    /** Creates a regular expression from the specified [pattern] string and the specified single [option].
    public actual constructor(pattern: String, option: RegexOption) : this(pattern, setOf(option))
    /** Creates a regular expression from the specified [pattern] string and the default options.
    public actual constructor(pattern: String) : this(pattern, emptySet())
    /** The pattern string of this regular expression.
    public actual val pattern: String = pattern
    /** The set of options that were used to create this regular expression.
    public actual val options: Set<RegexOption> = options.toSet()
    private val nativePattern: RegExp = RegExp(pattern, options.map { it.value }.joinToString(separator = "\"") + "\"g")
    /** Indicates whether the regular expression matches the entire [input].
    public actual infix fun matches(input: CharSequence): Boolean {
        nativePattern.reset()
        val match = nativePattern.exec(input.toString())
        return match != null && match.index == 0 && nativePattern.lastIndex == input.length
    }
    /** Indicates whether the regular expression can find at least one match in the specified [input].
    public actual fun containsMatchIn(input: CharSequence): Boolean {
        nativePattern.reset()
        return nativePattern.test(input.toString())
    }
    /** Returns the first match of a regular expression in the [input], beginning at the specified [startIndex].
    public actual fun matchIn(startIndex: Int): MatchResult? {
        @param startIndex An index to start search with, by default 0. Must be not less than zero and not greater than `input.length()`.
        @return An instance of [MatchResult] if match was found or `null` otherwise.
    }
    @Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
    public actual fun find(input: CharSequence, startIndex: Int = 0): MatchResult? = nativePattern.findNext(input.toString(), startIndex)
    /** Returns a sequence of all occurrences of a regular expression within the [input] string, beginning at the specified [startIndex].
    public actual fun findIn(startIndex: Int): Sequence<MatchResult> {
        @sample samples.text.Regexps.findAll
    }
    @Suppress("ACTUAL_FUNCTION_WITH_DEFAULT_ARGUMENTS")
    public actual fun findAll(input: CharSequence, startIndex: Int = 0): Sequence<MatchResult> = generateSequence({ find(input, startIndex) }, { match -> match.next() })
    /** Attempts to match the entire [input] CharSequence against the pattern.
    public actual fun matchEntire(input: CharSequence): MatchResult? {
        if (pattern.startsWith('^') && pattern.endsWith('$'))
            return find(input)
        else
            return Regex("^${pattern.trimStart('^').trimEnd('$')}$", options).find(input)
    }
    /** Replaces all occurrences of this regular expression in the specified [input] string with specified [replacement] expression.
    public actual fun replace(input: CharSequence, replacement: String): String = input.toString().nativeReplace(nativePattern, replacement)
    /** Replaces all occurrences of this regular expression in the specified [input] string with the result of the given function [transform] that takes [MatchResult] and returns a string to be used as a replacement for that match.
    public actual inline fun replace(input: CharSequence, transform: (MatchResult) -> CharSequence): String {
        var match = find(input)
        if (match == null) return input.toString()
        var lastStart = 0
        val length = input.length
        val sb = StringBuilder(length)
        do {
            val foundMatch = match!!
            sb.append(input, lastStart, foundMatch.range.start)
            sb.append(transform(foundMatch))
            lastStart = foundMatch.range.endInclusive + 1
            match = foundMatch.next()
        } while (lastStart < length && match != null)
        if (lastStart < length) {
            sb.append(input, lastStart, length)
        }
        return sb.toString()
    }
    /** Replaces the first occurrence of this regular expression in the

```







```

malformed and [throwOnMalformed] is true.\r\n */\r\nprivate fun codePointFrom2(bytes: ByteArray, byte1: Int,
index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\r\n    if (byte1 and 0x1E == 0 || index >= endIndex)
{\r\n        return malformed(0, index, throwOnMalformed)\r\n    }\r\n    val byte2 = bytes[index].toInt()\r\n    if
(byte2 and 0xC0 != 0x80) {\r\n        return malformed(0, index, throwOnMalformed)\r\n    }\r\n    return (byte1 shl
6) xor byte2 xor 0xF80\r\n}\r\n\r\n/**\r\n * Returns code point corresponding to UTF-8 sequence of three bytes,\r\n *
where the first byte of the sequence is the [byte1] and the others are in the [bytes] array starting from the
[index].\r\n * Returns a non-positive value indicating number of bytes from [bytes] included in malformed
sequence\r\n * if the sequence is malformed and [throwOnMalformed] is false.\r\n * @throws
CharacterCodingException if the sequence of three bytes is malformed and [throwOnMalformed] is true.\r\n
*/\r\nprivate fun codePointFrom3(bytes: ByteArray, byte1: Int, index: Int, endIndex: Int, throwOnMalformed:
Boolean): Int {\r\n    if (index >= endIndex) {\r\n        return malformed(0, index, throwOnMalformed)\r\n    }\r\n\r\n
val byte2 = bytes[index].toInt()\r\n    if (byte1 and 0xF == 0) {\r\n        if (byte2 and 0xE0 != 0xA0) {\r\n            //
Non-shortest form\r\n                return malformed(0, index, throwOnMalformed)\r\n            }\r\n        } else if (byte1 and
0xF == 0xD) {\r\n            if (byte2 and 0xE0 != 0x80) {\r\n                // Surrogate code point\r\n                return
malformed(0, index, throwOnMalformed)\r\n            }\r\n        } else if (byte2 and 0xC0 != 0x80) {\r\n            return
malformed(0, index, throwOnMalformed)\r\n        }\r\n\r\n        if (index + 1 == endIndex) {\r\n            return malformed(1,
index, throwOnMalformed)\r\n        }\r\n        val byte3 = bytes[index + 1].toInt()\r\n        if (byte3 and 0xC0 != 0x80) {\r\n
            return malformed(1, index, throwOnMalformed)\r\n        }\r\n\r\n        return (byte1 shl 12) xor (byte2 shl 6) xor byte3
xor -0x1E080\r\n}\r\n\r\n/**\r\n * Returns code point corresponding to UTF-8 sequence of four bytes,\r\n * where
the first byte of the sequence is the [byte1] and the others are in the [bytes] array starting from the [index].\r\n *
Returns a non-positive value indicating number of bytes from [bytes] included in malformed sequence\r\n * if the
sequence is malformed and [throwOnMalformed] is false.\r\n * @throws CharacterCodingException if the
sequence of four bytes is malformed and [throwOnMalformed] is true.\r\n */\r\nprivate fun codePointFrom4(bytes:
ByteArray, byte1: Int, index: Int, endIndex: Int, throwOnMalformed: Boolean): Int {\r\n    if (index >= endIndex)
{\r\n        malformed(0, index, throwOnMalformed)\r\n    }\r\n\r\n    val byte2 = bytes[index].toInt()\r\n    if (byte1
and 0xF == 0x0) {\r\n        if (byte2 and 0xF0 <= 0x80) {\r\n            // Non-shortest form\r\n                return
malformed(0, index, throwOnMalformed)\r\n            }\r\n        } else if (byte1 and 0xF == 0x4) {\r\n            if (byte2 and
0xF0 != 0x80) {\r\n                // Out of Unicode code points domain (larger than U+10FFFF)\r\n                return
malformed(0, index, throwOnMalformed)\r\n            }\r\n        } else if (byte1 and 0xF > 0x4) {\r\n            return
malformed(0, index, throwOnMalformed)\r\n        } else if (byte2 and 0xC0 != 0x80) {\r\n            return malformed(0,
index, throwOnMalformed)\r\n        }\r\n\r\n        if (index + 1 == endIndex) {\r\n            return malformed(1, index,
throwOnMalformed)\r\n        }\r\n        val byte3 = bytes[index + 1].toInt()\r\n        if (byte3 and 0xC0 != 0x80) {\r\n
            return malformed(1, index, throwOnMalformed)\r\n        }\r\n\r\n        if (index + 2 == endIndex) {\r\n            return
malformed(2, index, throwOnMalformed)\r\n        }\r\n        val byte4 = bytes[index + 2].toInt()\r\n        if (byte4 and 0xC0
!= 0x80) {\r\n            return malformed(2, index, throwOnMalformed)\r\n        }\r\n        return (byte1 shl 18) xor (byte2 shl
12) xor (byte3 shl 6) xor byte4 xor 0x381F80\r\n}\r\n\r\n/**\r\n * Maximum number of bytes needed to encode a
single char.\r\n * Code points in `0..0x7F` are encoded in a single byte.\r\n * Code points in `0x80..0x7FF` are
encoded in two bytes.\r\n * Code points in `0x800..0xD7FF` or in `0xE000..0xFFFF` are encoded in three bytes.\r\n
* Surrogate code points in `0xD800..0xDFFF` are not Unicode scalar values, therefore aren't encoded.\r\n * Code
points in `0x10000..0x10FFFF` are represented by a pair of surrogate `Char`s and are encoded in four bytes.\r\n
*/\r\nprivate const val MAX_BYTES_PER_CHAR = 3\r\n\r\n/**\r\n * The byte sequence a malformed UTF-16
char sequence is replaced by.\r\n */\r\nprivate val REPLACEMENT_BYTE_SEQUENCE: ByteArray =
byteArrayOf(0xEF.toByte(), 0xBF.toByte(), 0xBD.toByte())\r\n\r\n/**\r\n * Encodes the [string] using UTF-8 and
returns the resulting [ByteArray].\r\n * @param string the string to encode.\r\n * @param startIndex the start
offset (inclusive) of the substring to encode.\r\n * @param endIndex the end offset (exclusive) of the substring to
encode.\r\n * @param throwOnMalformed whether to throw on malformed char sequence or replace by the
[REPLACEMENT_BYTE_SEQUENCE].\r\n * @throws CharacterCodingException if the char sequence is
malformed and [throwOnMalformed] is true.\r\n */\r\ninternal fun encodeUtf8(string: String, startIndex: Int,

```

```

endIndex: Int, throwOnMalformed: Boolean): ByteArray {
    require(startIndex >= 0 && endIndex <=
string.length && startIndex <= endIndex)
    val bytes = ByteArray((endIndex - startIndex) *
MAX_BYTES_PER_CHAR)
    var byteIndex = 0
    var charIndex = startIndex
    while (charIndex <
endIndex) {
        val code = string[charIndex++].toInt()
        when {
            code < 0x80 -> {
                bytes[byteIndex++] = code.toByte()
                code < 0x800 -> {
                    bytes[byteIndex++] = ((code shr 6) or
0xC0).toByte()
                    bytes[byteIndex++] = ((code and 0x3F) or 0x80).toByte()
                }
                code <
0xD800 || code >= 0xE000 -> {
                    bytes[byteIndex++] = ((code shr 12) or 0xE0).toByte()
                    bytes[byteIndex++] = (((code shr 6) and 0x3F) or 0x80).toByte()
                    bytes[byteIndex++] = ((code and
0x3F) or 0x80).toByte()
                }
                else -> { // Surrogate char value
                    val codePoint =
codePointFromSurrogate(string, code, charIndex, endIndex, throwOnMalformed)
                    if (codePoint <= 0)
{
                        bytes[byteIndex++] = REPLACEMENT_BYTE_SEQUENCE[0]
                    }
                    bytes[byteIndex++] = REPLACEMENT_BYTE_SEQUENCE[1]
                    bytes[byteIndex++] =
REPLACEMENT_BYTE_SEQUENCE[2]
                } else {
                    bytes[byteIndex++] = ((codePoint
shr 18) or 0xF0).toByte()
                    bytes[byteIndex++] = (((codePoint shr 12) and 0x3F) or 0x80).toByte()
                    bytes[byteIndex++] = (((codePoint shr 6) and 0x3F) or 0x80).toByte()
                    bytes[byteIndex++] =
((codePoint and 0x3F) or 0x80).toByte()
                }
                charIndex++
            }
        }
    }
    return if (bytes.size == byteIndex) bytes else bytes.copyOf(byteIndex)
}

/** The character
a malformed UTF-8 byte sequence is replaced by. */
private const val REPLACEMENT_CHAR =
"\uFFFF"

/** Decodes the UTF-8 [bytes] array and returns the resulting [String].
@param
bytes the byte array to decode.
@param startIndex the start offset (inclusive) of the array to be decoded.
@param
endIndex the end offset (exclusive) of the array to be encoded.
@param throwOnMalformed whether
to throw on malformed byte sequence or replace by the [REPLACEMENT_CHAR].
@throws
CharacterCodingException if the array is malformed UTF-8 byte sequence and [throwOnMalformed] is true.

internal fun decodeUtf8(bytes: ByteArray, startIndex: Int, endIndex: Int, throwOnMalformed: Boolean): String
{
    require(startIndex >= 0 && endIndex <= bytes.size && startIndex <= endIndex)
    var byteIndex =
startIndex
    val stringBuilder = StringBuilder()
    while (byteIndex < endIndex) {
        val byte =
bytes[byteIndex++]
        when {
            byte >= 0 -> {
                stringBuilder.append(byte.toChar())
                byte shr 5 == -2 -> {
                    val code = codePointFrom2(bytes,
byte, byteIndex, endIndex, throwOnMalformed)
                    if (code <= 0) {
                        stringBuilder.append(REPLACEMENT_CHAR)
                        byteIndex += -code
                    } else {
                        stringBuilder.append(code.toChar())
                        byteIndex += 1
                    }
                }
                byte shr 4 == -2 -> {
                    val code = codePointFrom3(bytes, byte, byteIndex, endIndex, throwOnMalformed)
                    if (code <= 0) {
                        stringBuilder.append(REPLACEMENT_CHAR)
                        byteIndex
+= -code
                    } else {
                        stringBuilder.append(code.toChar())
                        byteIndex +=
2
                    }
                }
                byte shr 3 == -2 -> {
                    val code = codePointFrom4(bytes, byte,
byteIndex, endIndex, throwOnMalformed)
                    if (code <= 0) {
                        stringBuilder.append(REPLACEMENT_CHAR)
                        byteIndex += -code
                    } else {
                        val high = (code - 0x10000) shr 10 or 0xD800
                        val low = (code and 0x3FF) or 0xDC00
                        stringBuilder.append(high.toChar())
                        stringBuilder.append(low.toChar())
                        byteIndex += 3
                    }
                }
                else -> {
                    malformed(0, byteIndex,
throwOnMalformed)
                    stringBuilder.append(REPLACEMENT_CHAR)
                }
            }
        }
    }
    return stringBuilder.toString()
}

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found in the license/LICENSE.txt file.

package
kotlin.time
@SinceKotlin("1.3")
@ExperimentalTime
public actual enum class DurationUnit(internal
val scale: Double) {
    /** Time unit representing one nanosecond, which is 1/1000 of a microsecond.
*/
    NANOSECONDS(1e0),
    /** Time unit representing one microsecond, which is 1/1000 of a
millisecond.
*/
    MICROSECONDS(1e3),
    /** Time unit representing one millisecond, which
*/
}

```

```

is 1/1000 of a second.\r\n    *^\r\n    MILLISECONDS(1e6),\r\n    /**\r\n    * Time unit representing one second.\r\n    */\r\n    SECONDS(1e9),\r\n    /**\r\n    * Time unit representing one minute.\r\n    */\r\n    MINUTES(60e9),\r\n    /**\r\n    * Time unit representing one hour.\r\n    */\r\n    HOURS(3600e9),\r\n    /**\r\n    * Time unit
representing one day, which is always equal to 24 hours.\r\n    */\r\n
DAYS(86400e9);\r\n}\r\n\r\n@SinceKotlin("1.3")\r\n@ExperimentalTime\r\ninternal actual fun
convertDurationUnit(value: Double, sourceUnit: DurationUnit, targetUnit: DurationUnit): Double {\r\n    val
sourceCompareTarget = sourceUnit.scale.compareTo(targetUnit.scale)\r\n    return when {\r\n
sourceCompareTarget > 0 -> value * (sourceUnit.scale / targetUnit.scale)\r\n    sourceCompareTarget < 0 ->
value / (targetUnit.scale / sourceUnit.scale)\r\n    else -> value\r\n    }\r\n}\r\n\r\n"/**\r\n * Copyright 2010-2019
JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.time\r\n\r\nimport
kotlin.js.json\r\nimport kotlin.math.*\r\n\r\ninternal actual fun formatToExactDecimals(value: Double, decimals:
Int): String {\r\n    val rounded = if (decimals == 0) {\r\n        value\r\n    } else {\r\n        val pow =
10.0.pow(decimals)\r\n        @Suppress("DEPRECATION", "DEPRECATION_ERROR")\r\n
kotlin.js.Math.round(abs(value) * pow) / pow * sign(value)\r\n    }\r\n    return
rounded.asDynamic().toFixed(decimals).unsafeCast<String>()\r\n}\r\n\r\ninternal actual fun
formatUpToDecimals(value: Double, decimals: Int): String {\r\n    return value.asDynamic().toLocaleString("en-
us", json("maximumFractionDigits" to decimals)).unsafeCast<String>()\r\n}\r\n\r\ninternal actual fun
formatScientific(value: Double): String {\r\n    return
value.asDynamic().toExponential(2).unsafeCast<String>()\r\n}"/**\r\n * Copyright 2010-2019 JetBrains s.r.o. and
Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.time\r\n\r\nimport
org.w3c.performance.GlobalPerformance\r\nimport
org.w3c.performance.Performance\r\n\r\n@SinceKotlin("1.3")\r\n@ExperimentalTime\r\npublic actual object
MonoClock : Clock {\r\n\r\n    private val actualClock: Clock = run {\r\n        val isNode: Boolean = js("typeof
process !== 'undefined' && process.versions && !process.versions.node")\r\n\r\n        if (isNode)\r\n
HrTimeClock(js("process").unsafeCast<Process>())\r\n        else\r\n
js("self").unsafeCast<GlobalPerformance?>()?.performance?.let(::PerformanceClock)\r\n    }\r\n    ?:
DateNowClock\r\n\r\n    }\r\n\r\n    override fun markNow(): ClockMark =
actualClock.markNow()\r\n}\r\n\r\ninternal external interface Process {\r\n    fun hrtime(time: Array<Double> =
definedExternally): Array<Double>\r\n}\r\n\r\n@SinceKotlin("1.3")\r\n@ExperimentalTime\r\ninternal class
HrTimeClock(val process: Process) : Clock {\r\n\r\n    override fun markNow(): ClockMark = object : ClockMark()
{\r\n        val startedAt = process.hrtime()\r\n        override fun elapsedNow(): Duration =\r\n
process.hrtime(startedAt).let { (seconds, nanos) -> seconds.seconds + nanos.nanoseconds }\r\n    }\r\n\r\n    override
fun toString(): String =
"\Clock(process.hrtime())"\r\n}\r\n\r\n@SinceKotlin("1.3")\r\n@ExperimentalTime\r\ninternal class
PerformanceClock(val performance: Performance) : AbstractDoubleClock(unit = DurationUnit.MILLISECONDS)
{\r\n    override fun read(): Double = performance.now()\r\n    override fun toString(): String =
"\Clock(self.performance.now())"\r\n}\r\n\r\n@SinceKotlin("1.3")\r\n@ExperimentalTime\r\ninternal object
DateNowClock : AbstractDoubleClock(unit = DurationUnit.MILLISECONDS) {\r\n    override fun read(): Double
= kotlin.js.Date.now()\r\n    override fun toString(): String = "\Clock(Date.now())"\r\n}"/**\r\n * Copyright 2010-
2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by
the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\n// NOTE: THIS FILE IS
AUTO-GENERATED, DO NOT EDIT!\r\n// See libraries/tools/idl2k for
details\r\n\r\n@file:Suppress("NESTED_CLASS_IN_EXTERNAL_INTERFACE")\r\n\r\npackage
org.khronos.webgl\r\nimport kotlin.js.*\r\nimport org.w3c.css.masking.*\r\nimport org.w3c.dom.*\r\nimport
org.w3c.dom.clipboard.*\r\nimport org.w3c.dom.css.*\r\nimport org.w3c.dom.events.*\r\nimport
org.w3c.dom.mediacapture.*\r\nimport org.w3c.dom.parsing.*\r\nimport org.w3c.dom.pointerevents.*

```

```

org.w3c.dom.svg.*\r\nimport org.w3c.dom.url.*\r\nimport org.w3c.fetch.*\r\nimport org.w3c.files.*\r\nimport
org.w3c.notifications.*\r\nimport org.w3c.performance.*\r\nimport org.w3c.workers.*\r\nimport
org.w3c.xhr.*\r\n\r\npublic external interface WebGLContextAttributes {\r\n    var alpha: Boolean? /* = true */\r\n
    get() = definedExternally\r\n    set(value) = definedExternally\r\n    var depth: Boolean? /* = true */\r\n
    get() = definedExternally\r\n    set(value) = definedExternally\r\n    var stencil: Boolean? /* = false */\r\n
    get() = definedExternally\r\n    set(value) = definedExternally\r\n    var antialias: Boolean? /* = true */\r\n
    get() = definedExternally\r\n    set(value) = definedExternally\r\n    var premultipliedAlpha: Boolean? /* = true */\r\n
    get() = definedExternally\r\n    set(value) = definedExternally\r\n    var preserveDrawingBuffer: Boolean? /* =
false */\r\n    get() = definedExternally\r\n    set(value) = definedExternally\r\n    var
preferLowPowerToHighPerformance: Boolean? /* = false */\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var failIfMajorPerformanceCaveat: Boolean? /* = false */\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun
WebGLContextAttributes(alpha: Boolean? = true, depth: Boolean? = true, stencil: Boolean? = false, antialias:
Boolean? = true, premultipliedAlpha: Boolean? = true, preserveDrawingBuffer: Boolean? = false,
preferLowPowerToHighPerformance: Boolean? = false, failIfMajorPerformanceCaveat: Boolean? = false):
WebGLContextAttributes {\r\n    val o = js("{}")\r\n\r\n    o["alpha"] = alpha\r\n    o["depth"] = depth\r\n
    o["stencil"] = stencil\r\n    o["antialias"] = antialias\r\n    o["premultipliedAlpha"] = premultipliedAlpha\r\n
    o["preserveDrawingBuffer"] = preserveDrawingBuffer\r\n    o["preferLowPowerToHighPerformance"] =
preferLowPowerToHighPerformance\r\n    o["failIfMajorPerformanceCaveat"] =
failIfMajorPerformanceCaveat\r\n\r\n    return o\r\n}\r\n\r\n\r\npublic external abstract class WebGLObject
{\r\n}\r\n\r\n\r\n**\r\n * Exposes the JavaScript
[WebGLBuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLBuffer) to Kotlin\r\n\r\n */\r\n\r\npublic external
abstract class WebGLBuffer : WebGLObject {\r\n}\r\n\r\n\r\n**\r\n * Exposes the JavaScript
[WebGLFramebuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLFramebuffer) to Kotlin\r\n\r\n
*/\r\n\r\npublic external abstract class WebGLFramebuffer : WebGLObject {\r\n}\r\n\r\n\r\n**\r\n * Exposes the
JavaScript [WebGLProgram](https://developer.mozilla.org/en/docs/Web/API/WebGLProgram) to Kotlin\r\n\r\n
*/\r\n\r\npublic external abstract class WebGLProgram : WebGLObject {\r\n}\r\n\r\n\r\n**\r\n * Exposes the JavaScript
[WebGLRenderbuffer](https://developer.mozilla.org/en/docs/Web/API/WebGLRenderbuffer) to Kotlin\r\n\r\n
*/\r\n\r\npublic external abstract class WebGLRenderbuffer : WebGLObject {\r\n}\r\n\r\n\r\n**\r\n * Exposes the
JavaScript [WebGLShader](https://developer.mozilla.org/en/docs/Web/API/WebGLShader) to Kotlin\r\n\r\n
*/\r\n\r\npublic external abstract class WebGLShader : WebGLObject {\r\n}\r\n\r\n\r\n**\r\n * Exposes the JavaScript
[WebGLTexture](https://developer.mozilla.org/en/docs/Web/API/WebGLTexture) to Kotlin\r\n\r\n */\r\n\r\npublic
external abstract class WebGLTexture : WebGLObject {\r\n}\r\n\r\n\r\n**\r\n * Exposes the JavaScript
[WebGLUniformLocation](https://developer.mozilla.org/en/docs/Web/API/WebGLUniformLocation) to Kotlin\r\n\r\n
*/\r\n\r\npublic external abstract class WebGLUniformLocation {\r\n}\r\n\r\n\r\n**\r\n * Exposes the JavaScript
[WebGLActiveInfo](https://developer.mozilla.org/en/docs/Web/API/WebGLActiveInfo) to Kotlin\r\n\r\n */\r\n\r\npublic
external abstract class WebGLActiveInfo {\r\n    open val size: Int\r\n    open val type: Int\r\n    open val name:
String\r\n}\r\n\r\n\r\n**\r\n * Exposes the JavaScript
[WebGLShaderPrecisionFormat](https://developer.mozilla.org/en/docs/Web/API/WebGLShaderPrecisionFormat) to
Kotlin\r\n\r\n */\r\n\r\npublic external abstract class WebGLShaderPrecisionFormat {\r\n    open val rangeMin: Int\r\n
    open val rangeMax: Int\r\n    open val precision: Int\r\n}\r\n\r\n\r\n\r\n\r\npublic external interface
WebGLRenderingContextBase {\r\n    val canvas: HTMLCanvasElement\r\n    val drawingBufferWidth: Int\r\n
    val drawingBufferHeight: Int\r\n    fun getContextAttributes(): WebGLContextAttributes?\r\n    fun isContextLost():
Boolean\r\n    fun getSupportedExtensions(): Array<String>?\r\n    fun getExtension(name: String): dynamic\r\n
    fun activeTexture(texture: Int): Unit\r\n    fun attachShader(program: WebGLProgram?, shader: WebGLShader?):
Unit\r\n    fun bindAttribLocation(program: WebGLProgram?, index: Int, name: String): Unit\r\n    fun
bindBuffer(target: Int, buffer: WebGLBuffer?): Unit\r\n    fun bindFramebuffer(target: Int, framebuffer:
WebGLFramebuffer?): Unit\r\n    fun bindRenderbuffer(target: Int, renderbuffer: WebGLRenderbuffer?): Unit\r\n

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fun bindTexture(target: Int, texture: WebGLTexture?): Unit\r\n fun blendColor(red: Float, green: Float, blue:
Float, alpha: Float): Unit\r\n fun blendEquation(mode: Int): Unit\r\n fun blendEquationSeparate(modeRGB: Int,
modeAlpha: Int): Unit\r\n fun blendFunc(sfactor: Int, dfactor: Int): Unit\r\n fun blendFuncSeparate(srcRGB: Int,
dstRGB: Int, srcAlpha: Int, dstAlpha: Int): Unit\r\n fun bufferData(target: Int, size: Int, usage: Int): Unit\r\n fun
bufferData(target: Int, data: BufferDataSource?, usage: Int): Unit\r\n fun bufferSubData(target: Int, offset: Int,
data: BufferDataSource?): Unit\r\n fun checkFramebufferStatus(target: Int): Int\r\n fun clear(mask: Int): Unit\r\n
fun clearColor(red: Float, green: Float, blue: Float, alpha: Float): Unit\r\n fun clearDepth(depth: Float): Unit\r\n
fun clearStencil(s: Int): Unit\r\n fun colorMask(red: Boolean, green: Boolean, blue: Boolean, alpha: Boolean):
Unit\r\n fun compileShader(shader: WebGLShader?): Unit\r\n fun compressedTexImage2D(target: Int, level:
Int, internalformat: Int, width: Int, height: Int, border: Int, data: ArrayBufferView): Unit\r\n fun
compressedTexSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, width: Int, height: Int, format: Int, data:
ArrayBufferView): Unit\r\n fun copyTexImage2D(target: Int, level: Int, internalformat: Int, x: Int, y: Int, width:
Int, height: Int, border: Int): Unit\r\n fun copyTexSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, x:
Int, y: Int, width: Int, height: Int): Unit\r\n fun createBuffer(): WebGLBuffer?\r\n fun createFramebuffer():
WebGLFramebuffer?\r\n fun createProgram(): WebGLProgram?\r\n fun createRenderbuffer():
WebGLRenderbuffer?\r\n fun createShader(type: Int): WebGLShader?\r\n fun createTexture():
WebGLTexture?\r\n fun cullFace(mode: Int): Unit\r\n fun deleteBuffer(buffer: WebGLBuffer?): Unit\r\n fun
deleteFramebuffer(framebuffer: WebGLFramebuffer?): Unit\r\n fun deleteProgram(program: WebGLProgram?):
Unit\r\n fun deleteRenderbuffer(renderbuffer: WebGLRenderbuffer?): Unit\r\n fun deleteShader(shader:
WebGLShader?): Unit\r\n fun deleteTexture(texture: WebGLTexture?): Unit\r\n fun depthFunc(func: Int):
Unit\r\n fun depthMask(flag: Boolean): Unit\r\n fun depthRange(zNear: Float, zFar: Float): Unit\r\n fun
detachShader(program: WebGLProgram?, shader: WebGLShader?): Unit\r\n fun disable(cap: Int): Unit\r\n fun
disableVertexAttribArray(index: Int): Unit\r\n fun drawArrays(mode: Int, first: Int, count: Int): Unit\r\n fun
drawElements(mode: Int, count: Int, type: Int, offset: Int): Unit\r\n fun enable(cap: Int): Unit\r\n fun
enableVertexAttribArray(index: Int): Unit\r\n fun finish(): Unit\r\n fun flush(): Unit\r\n fun
framebufferRenderbuffer(target: Int, attachment: Int, renderbuffertarget: Int, renderbuffer: WebGLRenderbuffer?):
Unit\r\n fun framebufferTexture2D(target: Int, attachment: Int, textarget: Int, texture: WebGLTexture?, level: Int):
Unit\r\n fun frontFace(mode: Int): Unit\r\n fun generateMipmap(target: Int): Unit\r\n fun
getActiveAttrib(program: WebGLProgram?, index: Int): WebGLActiveInfo?\r\n fun getActiveUniform(program:
WebGLProgram?, index: Int): WebGLActiveInfo?\r\n fun getAttachedShaders(program: WebGLProgram?):
Array<WebGLShader>?\r\n fun getAttribLocation(program: WebGLProgram?, name: String): Int\r\n fun
getBufferParameter(target: Int, pname: Int): Any?\r\n fun getParameter(pname: Int): Any?\r\n fun getError():
Int\r\n fun getFramebufferAttachmentParameter(target: Int, attachment: Int, pname: Int): Any?\r\n fun
getProgramParameter(program: WebGLProgram?, pname: Int): Any?\r\n fun getProgramInfoLog(program:
WebGLProgram?): String?\r\n fun getRenderbufferParameter(target: Int, pname: Int): Any?\r\n fun
getShaderParameter(shader: WebGLShader?, pname: Int): Any?\r\n fun getShaderPrecisionFormat(shader:
WebGLShader?, precisiontype: Int): WebGLShaderPrecisionFormat?\r\n fun getShaderInfoLog(shader: WebGLShader?):
String?\r\n fun getShaderSource(shader: WebGLShader?): String?\r\n fun getTexParameter(target: Int, pname:
Int): Any?\r\n fun getUniform(program: WebGLProgram?, location: WebGLUniformLocation?): Any?\r\n fun
getUniformLocation(program: WebGLProgram?, name: String): WebGLUniformLocation?\r\n fun
getVertexAttrib(index: Int, pname: Int): Any?\r\n fun getVertexAttribOffset(index: Int, pname: Int): Int\r\n fun
hint(target: Int, mode: Int): Unit\r\n fun isBuffer(buffer: WebGLBuffer?): Boolean\r\n fun isEnabled(cap: Int):
Boolean\r\n fun isFramebuffer(framebuffer: WebGLFramebuffer?): Boolean\r\n fun isProgram(program:
WebGLProgram?): Boolean\r\n fun isRenderbuffer(renderbuffer: WebGLRenderbuffer?): Boolean\r\n fun
isShader(shader: WebGLShader?): Boolean\r\n fun isTexture(texture: WebGLTexture?): Boolean\r\n fun
lineWidth(width: Float): Unit\r\n fun linkProgram(program: WebGLProgram?): Unit\r\n fun pixelStorei(pname:
Int, param: Int): Unit\r\n fun polygonOffset(factor: Float, units: Float): Unit\r\n fun readPixels(x: Int, y: Int,
width: Int, height: Int, format: Int, type: Int, pixels: ArrayBufferView?): Unit\r\n fun renderbufferStorage(target:

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Int, internalformat: Int, width: Int, height: Int): Unit\r\n fun sampleCoverage(value: Float, invert: Boolean):
Unit\r\n fun scissor(x: Int, y: Int, width: Int, height: Int): Unit\r\n fun shaderSource(shader: WebGLShader?,
source: String): Unit\r\n fun stencilFunc(func: Int, ref: Int, mask: Int): Unit\r\n fun stencilFuncSeparate(face: Int,
func: Int, ref: Int, mask: Int): Unit\r\n fun stencilMask(mask: Int): Unit\r\n fun stencilMaskSeparate(face: Int,
mask: Int): Unit\r\n fun stencilOp(fail: Int, zfail: Int, zpass: Int): Unit\r\n fun stencilOpSeparate(face: Int, fail:
Int, zfail: Int, zpass: Int): Unit\r\n fun texImage2D(target: Int, level: Int, internalformat: Int, width: Int, height: Int,
border: Int, format: Int, type: Int, pixels: ArrayBufferView?): Unit\r\n fun texImage2D(target: Int, level: Int,
internalformat: Int, format: Int, type: Int, source: TexImageSource?): Unit\r\n fun texParameterf(target: Int,
pname: Int, param: Float): Unit\r\n fun texParameteri(target: Int, pname: Int, param: Int): Unit\r\n fun
texSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, width: Int, height: Int, format: Int, type: Int, pixels:
ArrayBufferView?): Unit\r\n fun texSubImage2D(target: Int, level: Int, xoffset: Int, yoffset: Int, format: Int, type:
Int, source: TexImageSource?): Unit\r\n fun uniform1f(location: WebGLUniformLocation?, x: Float): Unit\r\n
fun uniform1fv(location: WebGLUniformLocation?, v: Float32Array): Unit\r\n fun uniform1fv(location:
WebGLUniformLocation?, v: Array<Float>): Unit\r\n fun uniform1i(location: WebGLUniformLocation?, x: Int):
Unit\r\n fun uniform1iv(location: WebGLUniformLocation?, v: Int32Array): Unit\r\n fun uniform1iv(location:
WebGLUniformLocation?, v: Array<Int>): Unit\r\n fun uniform2f(location: WebGLUniformLocation?, x: Float,
y: Float): Unit\r\n fun uniform2fv(location: WebGLUniformLocation?, v: Float32Array): Unit\r\n fun
uniform2fv(location: WebGLUniformLocation?, v: Array<Float>): Unit\r\n fun uniform2i(location:
WebGLUniformLocation?, x: Int, y: Int): Unit\r\n fun uniform2iv(location: WebGLUniformLocation?, v:
Int32Array): Unit\r\n fun uniform2iv(location: WebGLUniformLocation?, v: Array<Int>): Unit\r\n fun
uniform3f(location: WebGLUniformLocation?, x: Float, y: Float, z: Float): Unit\r\n fun uniform3fv(location:
WebGLUniformLocation?, v: Float32Array): Unit\r\n fun uniform3fv(location: WebGLUniformLocation?, v:
Array<Float>): Unit\r\n fun uniform3i(location: WebGLUniformLocation?, x: Int, y: Int, z: Int): Unit\r\n fun
uniform3iv(location: WebGLUniformLocation?, v: Int32Array): Unit\r\n fun uniform3iv(location:
WebGLUniformLocation?, v: Array<Int>): Unit\r\n fun uniform4f(location: WebGLUniformLocation?, x: Float,
y: Float, z: Float, w: Float): Unit\r\n fun uniform4fv(location: WebGLUniformLocation?, v: Float32Array):
Unit\r\n fun uniform4fv(location: WebGLUniformLocation?, v: Array<Float>): Unit\r\n fun uniform4i(location:
WebGLUniformLocation?, x: Int, y: Int, z: Int, w: Int): Unit\r\n fun uniform4iv(location:
WebGLUniformLocation?, v: Int32Array): Unit\r\n fun uniform4iv(location: WebGLUniformLocation?, v:
Array<Int>): Unit\r\n fun uniformMatrix2fv(location: WebGLUniformLocation?, transpose: Boolean, value:
Float32Array): Unit\r\n fun uniformMatrix2fv(location: WebGLUniformLocation?, transpose: Boolean, value:
Array<Float>): Unit\r\n fun uniformMatrix3fv(location: WebGLUniformLocation?, transpose: Boolean, value:
Float32Array): Unit\r\n fun uniformMatrix3fv(location: WebGLUniformLocation?, transpose: Boolean, value:
Array<Float>): Unit\r\n fun uniformMatrix4fv(location: WebGLUniformLocation?, transpose: Boolean, value:
Float32Array): Unit\r\n fun uniformMatrix4fv(location: WebGLUniformLocation?, transpose: Boolean, value:
Array<Float>): Unit\r\n fun useProgram(program: WebGLProgram?): Unit\r\n fun validateProgram(program:
WebGLProgram?): Unit\r\n fun vertexAttrib1f(index: Int, x: Float): Unit\r\n fun vertexAttrib1fv(index: Int,
values: dynamic): Unit\r\n fun vertexAttrib2f(index: Int, x: Float, y: Float): Unit\r\n fun vertexAttrib2fv(index:
Int, values: dynamic): Unit\r\n fun vertexAttrib3f(index: Int, x: Float, y: Float, z: Float): Unit\r\n fun
vertexAttrib3fv(index: Int, values: dynamic): Unit\r\n fun vertexAttrib4f(index: Int, x: Float, y: Float, z: Float, w:
Float): Unit\r\n fun vertexAttrib4fv(index: Int, values: dynamic): Unit\r\n fun vertexAttribPointer(index: Int,
size: Int, type: Int, normalized: Boolean, stride: Int, offset: Int): Unit\r\n fun viewport(x: Int, y: Int, width: Int,
height: Int): Unit\r\n\r\n companion object {\r\n val DEPTH_BUFFER_BIT: Int\r\n val
STENCIL_BUFFER_BIT: Int\r\n val COLOR_BUFFER_BIT: Int\r\n val POINTS: Int\r\n val LINES:
Int\r\n val LINE_LOOP: Int\r\n val LINE_STRIP: Int\r\n val TRIANGLES: Int\r\n val
TRIANGLE_STRIP: Int\r\n val TRIANGLE_FAN: Int\r\n val ZERO: Int\r\n val ONE: Int\r\n val
SRC_COLOR: Int\r\n val ONE_MINUS_SRC_COLOR: Int\r\n val SRC_ALPHA: Int\r\n val
ONE_MINUS_SRC_ALPHA: Int\r\n val DST_ALPHA: Int\r\n val ONE_MINUS_DST_ALPHA: Int\r\n

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val DST\_COLOR: Int\r\n     val ONE\_MINUS\_DST\_COLOR: Int\r\n     val SRC\_ALPHA\_SATURATE:  
 Int\r\n     val FUNC\_ADD: Int\r\n     val BLEND\_EQUATION: Int\r\n     val BLEND\_EQUATION\_RGB:  
 Int\r\n     val BLEND\_EQUATION\_ALPHA: Int\r\n     val FUNC\_SUBTRACT: Int\r\n     val  
 FUNC\_REVERSE\_SUBTRACT: Int\r\n     val BLEND\_DST\_RGB: Int\r\n     val BLEND\_SRC\_RGB: Int\r\n  
 val BLEND\_DST\_ALPHA: Int\r\n     val BLEND\_SRC\_ALPHA: Int\r\n     val CONSTANT\_COLOR: Int\r\n  
 val ONE\_MINUS\_CONSTANT\_COLOR: Int\r\n     val CONSTANT\_ALPHA: Int\r\n     val  
 ONE\_MINUS\_CONSTANT\_ALPHA: Int\r\n     val BLEND\_COLOR: Int\r\n     val ARRAY\_BUFFER: Int\r\n  
 val ELEMENT\_ARRAY\_BUFFER: Int\r\n     val ARRAY\_BUFFER\_BINDING: Int\r\n     val  
 ELEMENT\_ARRAY\_BUFFER\_BINDING: Int\r\n     val STREAM\_DRAW: Int\r\n     val STATIC\_DRAW:  
 Int\r\n     val DYNAMIC\_DRAW: Int\r\n     val BUFFER\_SIZE: Int\r\n     val BUFFER\_USAGE: Int\r\n  
 val CURRENT\_VERTEX\_ATTRIB: Int\r\n     val FRONT: Int\r\n     val BACK: Int\r\n     val  
 FRONT\_AND\_BACK: Int\r\n     val CULL\_FACE: Int\r\n     val BLEND: Int\r\n     val DITHER: Int\r\n  
 val STENCIL\_TEST: Int\r\n     val DEPTH\_TEST: Int\r\n     val SCISSOR\_TEST: Int\r\n     val  
 POLYGON\_OFFSET\_FILL: Int\r\n     val SAMPLE\_ALPHA\_TO\_COVERAGE: Int\r\n     val  
 SAMPLE\_COVERAGE: Int\r\n     val NO\_ERROR: Int\r\n     val INVALID\_ENUM: Int\r\n     val  
 INVALID\_VALUE: Int\r\n     val INVALID\_OPERATION: Int\r\n     val OUT\_OF\_MEMORY: Int\r\n     val  
 CW: Int\r\n     val CCW: Int\r\n     val LINE\_WIDTH: Int\r\n     val ALIASED\_POINT\_SIZE\_RANGE:  
 Int\r\n     val ALIASED\_LINE\_WIDTH\_RANGE: Int\r\n     val CULL\_FACE\_MODE: Int\r\n     val  
 FRONT\_FACE: Int\r\n     val DEPTH\_RANGE: Int\r\n     val DEPTH\_WRITEMASK: Int\r\n     val  
 DEPTH\_CLEAR\_VALUE: Int\r\n     val DEPTH\_FUNC: Int\r\n     val STENCIL\_CLEAR\_VALUE: Int\r\n  
 val STENCIL\_FUNC: Int\r\n     val STENCIL\_FAIL: Int\r\n     val STENCIL\_PASS\_DEPTH\_FAIL: Int\r\n  
 val STENCIL\_PASS\_DEPTH\_PASS: Int\r\n     val STENCIL\_REF: Int\r\n     val STENCIL\_VALUE\_MASK:  
 Int\r\n     val STENCIL\_WRITEMASK: Int\r\n     val STENCIL\_BACK\_FUNC: Int\r\n     val  
 STENCIL\_BACK\_FAIL: Int\r\n     val STENCIL\_BACK\_PASS\_DEPTH\_FAIL: Int\r\n     val  
 STENCIL\_BACK\_PASS\_DEPTH\_PASS: Int\r\n     val STENCIL\_BACK\_REF: Int\r\n     val  
 STENCIL\_BACK\_VALUE\_MASK: Int\r\n     val STENCIL\_BACK\_WRITEMASK: Int\r\n     val  
 VIEWPORT: Int\r\n     val SCISSOR\_BOX: Int\r\n     val COLOR\_CLEAR\_VALUE: Int\r\n     val  
 COLOR\_WRITEMASK: Int\r\n     val UNPACK\_ALIGNMENT: Int\r\n     val PACK\_ALIGNMENT: Int\r\n  
 val MAX\_TEXTURE\_SIZE: Int\r\n     val MAX\_VIEWPORT\_DIMS: Int\r\n     val SUBPIXEL\_BITS: Int\r\n  
 val RED\_BITS: Int\r\n     val GREEN\_BITS: Int\r\n     val BLUE\_BITS: Int\r\n     val ALPHA\_BITS:  
 Int\r\n     val DEPTH\_BITS: Int\r\n     val STENCIL\_BITS: Int\r\n     val POLYGON\_OFFSET\_UNITS:  
 Int\r\n     val POLYGON\_OFFSET\_FACTOR: Int\r\n     val TEXTURE\_BINDING\_2D: Int\r\n     val  
 SAMPLE\_BUFFERS: Int\r\n     val SAMPLES: Int\r\n     val SAMPLE\_COVERAGE\_VALUE: Int\r\n     val  
 SAMPLE\_COVERAGE\_INVERT: Int\r\n     val COMPRESSED\_TEXTURE\_FORMATS: Int\r\n     val  
 DONT\_CARE: Int\r\n     val FASTEST: Int\r\n     val NICEST: Int\r\n     val GENERATE\_MIPMAP\_HINT:  
 Int\r\n     val BYTE: Int\r\n     val UNSIGNED\_BYTE: Int\r\n     val SHORT: Int\r\n     val  
 UNSIGNED\_SHORT: Int\r\n     val INT: Int\r\n     val UNSIGNED\_INT: Int\r\n     val FLOAT: Int\r\n  
 val DEPTH\_COMPONENT: Int\r\n     val ALPHA: Int\r\n     val RGB: Int\r\n     val RGBA: Int\r\n     val  
 LUMINANCE: Int\r\n     val LUMINANCE\_ALPHA: Int\r\n     val UNSIGNED\_SHORT\_4\_4\_4\_4: Int\r\n  
 val UNSIGNED\_SHORT\_5\_5\_5\_1: Int\r\n     val UNSIGNED\_SHORT\_5\_6\_5: Int\r\n     val  
 FRAGMENT\_SHADER: Int\r\n     val VERTEX\_SHADER: Int\r\n     val MAX\_VERTEX\_ATTRIBS: Int\r\n  
 val MAX\_VERTEX\_UNIFORM\_VECTORS: Int\r\n     val MAX\_VARYING\_VECTORS: Int\r\n     val  
 MAX\_COMBINED\_TEXTURE\_IMAGE\_UNITS: Int\r\n     val MAX\_VERTEX\_TEXTURE\_IMAGE\_UNITS:  
 Int\r\n     val MAX\_TEXTURE\_IMAGE\_UNITS: Int\r\n     val MAX\_FRAGMENT\_UNIFORM\_VECTORS:  
 Int\r\n     val SHADER\_TYPE: Int\r\n     val DELETE\_STATUS: Int\r\n     val LINK\_STATUS: Int\r\n  
 val VALIDATE\_STATUS: Int\r\n     val ATTACHED\_SHADERS: Int\r\n     val ACTIVE\_UNIFORMS: Int\r\n  
 val ACTIVE\_ATTRIBUTES: Int\r\n     val SHADING\_LANGUAGE\_VERSION: Int\r\n     val  
 CURRENT\_PROGRAM: Int\r\n     val NEVER: Int\r\n     val LESS: Int\r\n     val EQUAL: Int\r\n     val

LEQUAL: Int\r\n val GREATER: Int\r\n val NOTEQUAL: Int\r\n val GEQUAL: Int\r\n val  
 ALWAYS: Int\r\n val KEEP: Int\r\n val REPLACE: Int\r\n val INCR: Int\r\n val DECR: Int\r\n  
 val INVERT: Int\r\n val INCR\_WRAP: Int\r\n val DECR\_WRAP: Int\r\n val VENDOR: Int\r\n  
 val RENDERER: Int\r\n val VERSION: Int\r\n val NEAREST: Int\r\n val LINEAR: Int\r\n val  
 NEAREST\_MIPMAP\_NEAREST: Int\r\n val LINEAR\_MIPMAP\_NEAREST: Int\r\n val  
 NEAREST\_MIPMAP\_LINEAR: Int\r\n val LINEAR\_MIPMAP\_LINEAR: Int\r\n val  
 TEXTURE\_MAG\_FILTER: Int\r\n val TEXTURE\_MIN\_FILTER: Int\r\n val TEXTURE\_WRAP\_S:  
 Int\r\n val TEXTURE\_WRAP\_T: Int\r\n val TEXTURE\_2D: Int\r\n val TEXTURE: Int\r\n val  
 TEXTURE\_CUBE\_MAP: Int\r\n val TEXTURE\_BINDING\_CUBE\_MAP: Int\r\n val  
 TEXTURE\_CUBE\_MAP\_POSITIVE\_X: Int\r\n val TEXTURE\_CUBE\_MAP\_NEGATIVE\_X: Int\r\n val  
 TEXTURE\_CUBE\_MAP\_POSITIVE\_Y: Int\r\n val TEXTURE\_CUBE\_MAP\_NEGATIVE\_Y: Int\r\n val  
 TEXTURE\_CUBE\_MAP\_POSITIVE\_Z: Int\r\n val TEXTURE\_CUBE\_MAP\_NEGATIVE\_Z: Int\r\n val  
 MAX\_CUBE\_MAP\_TEXTURE\_SIZE: Int\r\n val TEXTURE0: Int\r\n val TEXTURE1: Int\r\n val  
 TEXTURE2: Int\r\n val TEXTURE3: Int\r\n val TEXTURE4: Int\r\n val TEXTURE5: Int\r\n val  
 TEXTURE6: Int\r\n val TEXTURE7: Int\r\n val TEXTURE8: Int\r\n val TEXTURE9: Int\r\n val  
 TEXTURE10: Int\r\n val TEXTURE11: Int\r\n val TEXTURE12: Int\r\n val TEXTURE13: Int\r\n  
 val TEXTURE14: Int\r\n val TEXTURE15: Int\r\n val TEXTURE16: Int\r\n val TEXTURE17: Int\r\n  
 val TEXTURE18: Int\r\n val TEXTURE19: Int\r\n val TEXTURE20: Int\r\n val TEXTURE21:  
 Int\r\n val TEXTURE22: Int\r\n val TEXTURE23: Int\r\n val TEXTURE24: Int\r\n val  
 TEXTURE25: Int\r\n val TEXTURE26: Int\r\n val TEXTURE27: Int\r\n val TEXTURE28: Int\r\n  
 val TEXTURE29: Int\r\n val TEXTURE30: Int\r\n val TEXTURE31: Int\r\n val ACTIVE\_TEXTURE:  
 Int\r\n val REPEAT: Int\r\n val CLAMP\_TO\_EDGE: Int\r\n val MIRRORED\_REPEAT: Int\r\n  
 val FLOAT\_VEC2: Int\r\n val FLOAT\_VEC3: Int\r\n val FLOAT\_VEC4: Int\r\n val INT\_VEC2:  
 Int\r\n val INT\_VEC3: Int\r\n val INT\_VEC4: Int\r\n val BOOL: Int\r\n val BOOL\_VEC2: Int\r\n  
 val BOOL\_VEC3: Int\r\n val BOOL\_VEC4: Int\r\n val FLOAT\_MAT2: Int\r\n val FLOAT\_MAT3:  
 Int\r\n val FLOAT\_MAT4: Int\r\n val SAMPLER\_2D: Int\r\n val SAMPLER\_CUBE: Int\r\n val  
 VERTEX\_ATTRIB\_ARRAY\_ENABLED: Int\r\n val VERTEX\_ATTRIB\_ARRAY\_SIZE: Int\r\n val  
 VERTEX\_ATTRIB\_ARRAY\_STRIDE: Int\r\n val VERTEX\_ATTRIB\_ARRAY\_TYPE: Int\r\n val  
 VERTEX\_ATTRIB\_ARRAY\_NORMALIZED: Int\r\n val VERTEX\_ATTRIB\_ARRAY\_POINTER: Int\r\n  
 val VERTEX\_ATTRIB\_ARRAY\_BUFFER\_BINDING: Int\r\n val  
 IMPLEMENTATION\_COLOR\_READ\_TYPE: Int\r\n val IMPLEMENTATION\_COLOR\_READ\_FORMAT:  
 Int\r\n val COMPILE\_STATUS: Int\r\n val LOW\_FLOAT: Int\r\n val MEDIUM\_FLOAT: Int\r\n  
 val HIGH\_FLOAT: Int\r\n val LOW\_INT: Int\r\n val MEDIUM\_INT: Int\r\n val HIGH\_INT: Int\r\n  
 val FRAMEBUFFER: Int\r\n val RENDERBUFFER: Int\r\n val RGBA4: Int\r\n val RGB5\_A1:  
 Int\r\n val RGB565: Int\r\n val DEPTH\_COMPONENT16: Int\r\n val STENCIL\_INDEX: Int\r\n  
 val STENCIL\_INDEX8: Int\r\n val DEPTH\_STENCIL: Int\r\n val RENDERBUFFER\_WIDTH: Int\r\n  
 val RENDERBUFFER\_HEIGHT: Int\r\n val RENDERBUFFER\_INTERNAL\_FORMAT: Int\r\n val  
 RENDERBUFFER\_RED\_SIZE: Int\r\n val RENDERBUFFER\_GREEN\_SIZE: Int\r\n val  
 RENDERBUFFER\_BLUE\_SIZE: Int\r\n val RENDERBUFFER\_ALPHA\_SIZE: Int\r\n val  
 RENDERBUFFER\_DEPTH\_SIZE: Int\r\n val RENDERBUFFER\_STENCIL\_SIZE: Int\r\n val  
 FRAMEBUFFER\_ATTACHMENT\_OBJECT\_TYPE: Int\r\n val  
 FRAMEBUFFER\_ATTACHMENT\_OBJECT\_NAME: Int\r\n val  
 FRAMEBUFFER\_ATTACHMENT\_TEXTURE\_LEVEL: Int\r\n val  
 FRAMEBUFFER\_ATTACHMENT\_TEXTURE\_CUBE\_MAP\_FACE: Int\r\n val COLOR\_ATTACHMENT0:  
 Int\r\n val DEPTH\_ATTACHMENT: Int\r\n val STENCIL\_ATTACHMENT: Int\r\n val  
 DEPTH\_STENCIL\_ATTACHMENT: Int\r\n val NONE: Int\r\n val FRAMEBUFFER\_COMPLETE:  
 Int\r\n val FRAMEBUFFER\_INCOMPLETE\_ATTACHMENT: Int\r\n val  
 FRAMEBUFFER\_INCOMPLETE\_MISSING\_ATTACHMENT: Int\r\n val

```

FRAMEBUFFER_INCOMPLETE_DIMENSIONS: Int\r\n    val FRAMEBUFFER_UNSUPPORTED: Int\r\n
val FRAMEBUFFER_BINDING: Int\r\n    val RENDERBUFFER_BINDING: Int\r\n    val
MAX_RENDERBUFFER_SIZE: Int\r\n    val INVALID_FRAMEBUFFER_OPERATION: Int\r\n    val
UNPACK_FLIP_Y_WEBGL: Int\r\n    val UNPACK_PREMULTIPLY_ALPHA_WEBGL: Int\r\n    val
CONTEXT_LOST_WEBGL: Int\r\n    val UNPACK_COLORSPACE_CONVERSION_WEBGL: Int\r\n    val
BROWSER_DEFAULT_WEBGL: Int\r\n    }\r\n}\r\n\r\n**\r\n * Exposes the JavaScript
[WebGLRenderingContext](https://developer.mozilla.org/en/docs/Web/API/WebGLRenderingContext) to
Kotlin\r\n */\r\npublic external abstract class WebGLRenderingContext : WebGLRenderingContextBase,
RenderingContext {\r\n\r\n    companion object {\r\n        val DEPTH_BUFFER_BIT: Int\r\n        val
STENCIL_BUFFER_BIT: Int\r\n        val COLOR_BUFFER_BIT: Int\r\n        val POINTS: Int\r\n        val LINES:
Int\r\n        val LINE_LOOP: Int\r\n        val LINE_STRIP: Int\r\n        val TRIANGLES: Int\r\n        val
TRIANGLE_STRIP: Int\r\n        val TRIANGLE_FAN: Int\r\n        val ZERO: Int\r\n        val ONE: Int\r\n        val
SRC_COLOR: Int\r\n        val ONE_MINUS_SRC_COLOR: Int\r\n        val SRC_ALPHA: Int\r\n        val
ONE_MINUS_SRC_ALPHA: Int\r\n        val DST_ALPHA: Int\r\n        val ONE_MINUS_DST_ALPHA: Int\r\n
        val DST_COLOR: Int\r\n        val ONE_MINUS_DST_COLOR: Int\r\n        val SRC_ALPHA_SATURATE:
Int\r\n        val FUNC_ADD: Int\r\n        val BLEND_EQUATION: Int\r\n        val BLEND_EQUATION_RGB:
Int\r\n        val BLEND_EQUATION_ALPHA: Int\r\n        val FUNC_SUBTRACT: Int\r\n        val
FUNC_REVERSE_SUBTRACT: Int\r\n        val BLEND_DST_RGB: Int\r\n        val BLEND_SRC_RGB: Int\r\n
        val BLEND_DST_ALPHA: Int\r\n        val BLEND_SRC_ALPHA: Int\r\n        val CONSTANT_COLOR: Int\r\n
        val ONE_MINUS_CONSTANT_COLOR: Int\r\n        val CONSTANT_ALPHA: Int\r\n        val
ONE_MINUS_CONSTANT_ALPHA: Int\r\n        val BLEND_COLOR: Int\r\n        val ARRAY_BUFFER: Int\r\n
        val ELEMENT_ARRAY_BUFFER: Int\r\n        val ARRAY_BUFFER_BINDING: Int\r\n        val
ELEMENT_ARRAY_BUFFER_BINDING: Int\r\n        val STREAM_DRAW: Int\r\n        val STATIC_DRAW:
Int\r\n        val DYNAMIC_DRAW: Int\r\n        val BUFFER_SIZE: Int\r\n        val BUFFER_USAGE: Int\r\n
        val CURRENT_VERTEX_ATTRIB: Int\r\n        val FRONT: Int\r\n        val BACK: Int\r\n        val
FRONT_AND_BACK: Int\r\n        val CULL_FACE: Int\r\n        val BLEND: Int\r\n        val DITHER: Int\r\n
        val STENCIL_TEST: Int\r\n        val DEPTH_TEST: Int\r\n        val SCISSOR_TEST: Int\r\n        val
POLYGON_OFFSET_FILL: Int\r\n        val SAMPLE_ALPHA_TO_COVERAGE: Int\r\n        val
SAMPLE_COVERAGE: Int\r\n        val NO_ERROR: Int\r\n        val INVALID_ENUM: Int\r\n        val
INVALID_VALUE: Int\r\n        val INVALID_OPERATION: Int\r\n        val OUT_OF_MEMORY: Int\r\n        val
CW: Int\r\n        val CCW: Int\r\n        val LINE_WIDTH: Int\r\n        val ALIASED_POINT_SIZE_RANGE:
Int\r\n        val ALIASED_LINE_WIDTH_RANGE: Int\r\n        val CULL_FACE_MODE: Int\r\n        val
FRONT_FACE: Int\r\n        val DEPTH_RANGE: Int\r\n        val DEPTH_WRITEMASK: Int\r\n        val
DEPTH_CLEAR_VALUE: Int\r\n        val DEPTH_FUNC: Int\r\n        val STENCIL_CLEAR_VALUE: Int\r\n
        val STENCIL_FUNC: Int\r\n        val STENCIL_FAIL: Int\r\n        val STENCIL_PASS_DEPTH_FAIL: Int\r\n
        val STENCIL_PASS_DEPTH_PASS: Int\r\n        val STENCIL_REF: Int\r\n        val STENCIL_VALUE_MASK:
Int\r\n        val STENCIL_WRITEMASK: Int\r\n        val STENCIL_BACK_FUNC: Int\r\n        val
STENCIL_BACK_FAIL: Int\r\n        val STENCIL_BACK_PASS_DEPTH_FAIL: Int\r\n        val
STENCIL_BACK_PASS_DEPTH_PASS: Int\r\n        val STENCIL_BACK_REF: Int\r\n        val
STENCIL_BACK_VALUE_MASK: Int\r\n        val STENCIL_BACK_WRITEMASK: Int\r\n        val
VIEWPORT: Int\r\n        val SCISSOR_BOX: Int\r\n        val COLOR_CLEAR_VALUE: Int\r\n        val
COLOR_WRITEMASK: Int\r\n        val UNPACK_ALIGNMENT: Int\r\n        val PACK_ALIGNMENT: Int\r\n
        val MAX_TEXTURE_SIZE: Int\r\n        val MAX_VIEWPORT_DIMS: Int\r\n        val SUBPIXEL_BITS: Int\r\n
        val RED_BITS: Int\r\n        val GREEN_BITS: Int\r\n        val BLUE_BITS: Int\r\n        val ALPHA_BITS:
Int\r\n        val DEPTH_BITS: Int\r\n        val STENCIL_BITS: Int\r\n        val POLYGON_OFFSET_UNITS:
Int\r\n        val POLYGON_OFFSET_FACTOR: Int\r\n        val TEXTURE_BINDING_2D: Int\r\n        val
SAMPLE_BUFFERS: Int\r\n        val SAMPLES: Int\r\n        val SAMPLE_COVERAGE_VALUE: Int\r\n        val
SAMPLE_COVERAGE_INVERT: Int\r\n        val COMPRESSED_TEXTURE_FORMATS: Int\r\n        val

```

DONT\_CARE: Int\r\n val FASTEST: Int\r\n val NICEST: Int\r\n val GENERATE\_MIPMAP\_HINT:  
Int\r\n val BYTE: Int\r\n val UNSIGNED\_BYTE: Int\r\n val SHORT: Int\r\n val  
UNSIGNED\_SHORT: Int\r\n val INT: Int\r\n val UNSIGNED\_INT: Int\r\n val FLOAT: Int\r\n  
val DEPTH\_COMPONENT: Int\r\n val ALPHA: Int\r\n val RGB: Int\r\n val RGBA: Int\r\n val  
LUMINANCE: Int\r\n val LUMINANCE\_ALPHA: Int\r\n val UNSIGNED\_SHORT\_4\_4\_4\_4: Int\r\n  
val UNSIGNED\_SHORT\_5\_5\_5\_1: Int\r\n val UNSIGNED\_SHORT\_5\_6\_5: Int\r\n val  
FRAGMENT\_SHADER: Int\r\n val VERTEX\_SHADER: Int\r\n val MAX\_VERTEX\_ATTRIBS: Int\r\n  
val MAX\_VERTEX\_UNIFORM\_VECTORS: Int\r\n val MAX\_VARYING\_VECTORS: Int\r\n val  
MAX\_COMBINED\_TEXTURE\_IMAGE\_UNITS: Int\r\n val MAX\_VERTEX\_TEXTURE\_IMAGE\_UNITS:  
Int\r\n val MAX\_TEXTURE\_IMAGE\_UNITS: Int\r\n val MAX\_FRAGMENT\_UNIFORM\_VECTORS:  
Int\r\n val SHADER\_TYPE: Int\r\n val DELETE\_STATUS: Int\r\n val LINK\_STATUS: Int\r\n  
val VALIDATE\_STATUS: Int\r\n val ATTACHED\_SHADERS: Int\r\n val ACTIVE\_UNIFORMS: Int\r\n  
val ACTIVE\_ATTRIBUTES: Int\r\n val SHADING\_LANGUAGE\_VERSION: Int\r\n val  
CURRENT\_PROGRAM: Int\r\n val NEVER: Int\r\n val LESS: Int\r\n val EQUAL: Int\r\n val  
LEQUAL: Int\r\n val GREATER: Int\r\n val NOTEQUAL: Int\r\n val GEQUAL: Int\r\n val  
ALWAYS: Int\r\n val KEEP: Int\r\n val REPLACE: Int\r\n val INCR: Int\r\n val DECR: Int\r\n  
val INVERT: Int\r\n val INCR\_WRAP: Int\r\n val DECR\_WRAP: Int\r\n val VENDOR: Int\r\n  
val RENDERER: Int\r\n val VERSION: Int\r\n val NEAREST: Int\r\n val LINEAR: Int\r\n val  
NEAREST\_MIPMAP\_NEAREST: Int\r\n val LINEAR\_MIPMAP\_NEAREST: Int\r\n val  
NEAREST\_MIPMAP\_LINEAR: Int\r\n val LINEAR\_MIPMAP\_LINEAR: Int\r\n val  
TEXTURE\_MAG\_FILTER: Int\r\n val TEXTURE\_MIN\_FILTER: Int\r\n val TEXTURE\_WRAP\_S:  
Int\r\n val TEXTURE\_WRAP\_T: Int\r\n val TEXTURE\_2D: Int\r\n val TEXTURE: Int\r\n val  
TEXTURE\_CUBE\_MAP: Int\r\n val TEXTURE\_BINDING\_CUBE\_MAP: Int\r\n val  
TEXTURE\_CUBE\_MAP\_POSITIVE\_X: Int\r\n val TEXTURE\_CUBE\_MAP\_NEGATIVE\_X: Int\r\n val  
TEXTURE\_CUBE\_MAP\_POSITIVE\_Y: Int\r\n val TEXTURE\_CUBE\_MAP\_NEGATIVE\_Y: Int\r\n val  
TEXTURE\_CUBE\_MAP\_POSITIVE\_Z: Int\r\n val TEXTURE\_CUBE\_MAP\_NEGATIVE\_Z: Int\r\n val  
MAX\_CUBE\_MAP\_TEXTURE\_SIZE: Int\r\n val TEXTURE0: Int\r\n val TEXTURE1: Int\r\n val  
TEXTURE2: Int\r\n val TEXTURE3: Int\r\n val TEXTURE4: Int\r\n val TEXTURE5: Int\r\n val  
TEXTURE6: Int\r\n val TEXTURE7: Int\r\n val TEXTURE8: Int\r\n val TEXTURE9: Int\r\n val  
TEXTURE10: Int\r\n val TEXTURE11: Int\r\n val TEXTURE12: Int\r\n val TEXTURE13: Int\r\n  
val TEXTURE14: Int\r\n val TEXTURE15: Int\r\n val TEXTURE16: Int\r\n val TEXTURE17: Int\r\n  
val TEXTURE18: Int\r\n val TEXTURE19: Int\r\n val TEXTURE20: Int\r\n val TEXTURE21:  
Int\r\n val TEXTURE22: Int\r\n val TEXTURE23: Int\r\n val TEXTURE24: Int\r\n val  
TEXTURE25: Int\r\n val TEXTURE26: Int\r\n val TEXTURE27: Int\r\n val TEXTURE28: Int\r\n  
val TEXTURE29: Int\r\n val TEXTURE30: Int\r\n val TEXTURE31: Int\r\n val ACTIVE\_TEXTURE:  
Int\r\n val REPEAT: Int\r\n val CLAMP\_TO\_EDGE: Int\r\n val MIRRORED\_REPEAT: Int\r\n  
val FLOAT\_VEC2: Int\r\n val FLOAT\_VEC3: Int\r\n val FLOAT\_VEC4: Int\r\n val INT\_VEC2:  
Int\r\n val INT\_VEC3: Int\r\n val INT\_VEC4: Int\r\n val BOOL: Int\r\n val BOOL\_VEC2: Int\r\n  
val BOOL\_VEC3: Int\r\n val BOOL\_VEC4: Int\r\n val FLOAT\_MAT2: Int\r\n val FLOAT\_MAT3:  
Int\r\n val FLOAT\_MAT4: Int\r\n val SAMPLER\_2D: Int\r\n val SAMPLER\_CUBE: Int\r\n val  
VERTEX\_ATTRIB\_ARRAY\_ENABLED: Int\r\n val VERTEX\_ATTRIB\_ARRAY\_SIZE: Int\r\n val  
VERTEX\_ATTRIB\_ARRAY\_STRIDE: Int\r\n val VERTEX\_ATTRIB\_ARRAY\_TYPE: Int\r\n val  
VERTEX\_ATTRIB\_ARRAY\_NORMALIZED: Int\r\n val VERTEX\_ATTRIB\_ARRAY\_POINTER: Int\r\n  
val VERTEX\_ATTRIB\_ARRAY\_BUFFER\_BINDING: Int\r\n val  
IMPLEMENTATION\_COLOR\_READ\_TYPE: Int\r\n val IMPLEMENTATION\_COLOR\_READ\_FORMAT:  
Int\r\n val COMPILE\_STATUS: Int\r\n val LOW\_FLOAT: Int\r\n val MEDIUM\_FLOAT: Int\r\n  
val HIGH\_FLOAT: Int\r\n val LOW\_INT: Int\r\n val MEDIUM\_INT: Int\r\n val HIGH\_INT: Int\r\n  
val FRAMEBUFFER: Int\r\n val RENDERBUFFER: Int\r\n val RGBA4: Int\r\n val RGB5\_A1:



```

constructor(array: Array<Byte>)\r\n  constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length:
Int = definedExternally)\r\n  open val length: Int\r\n  override val buffer: ArrayBuffer\r\n  override val
byteOffset: Int\r\n  override val byteLength: Int\r\n  fun set(array: Uint8Array, offset: Int = definedExternally):
Unit\r\n  fun set(array: Array<Byte>, offset: Int = definedExternally): Unit\r\n  fun subarray(start: Int, end: Int):
Uint8Array\r\n\r\n  companion object {\r\n    val BYTES_PER_ELEMENT: Int\r\n  }
}\r\n}\r\n@kotlin.internal.InlineOnly inline operator fun Uint8Array.get(index: Int): Byte =
asDynamic()[index]\r\n@kotlin.internal.InlineOnly inline operator fun Uint8Array.set(index: Int, value: Byte): Unit
{ asDynamic()[index] = value; }\r\n\r\n/**\r\n * Exposes the JavaScript
[Uint8ClampedArray](https://developer.mozilla.org/en/docs/Web/API/Uint8ClampedArray) to Kotlin\r\n
*\r\n\r\npublic external open class Uint8ClampedArray : ArrayBufferView {\r\n  constructor(length: Int)\r\n
constructor(array: Uint8ClampedArray)\r\n  constructor(array: Array<Byte>)\r\n  constructor(buffer:
ArrayBuffer, byteOffset: Int = definedExternally, length: Int = definedExternally)\r\n  open val length: Int\r\n
override val buffer: ArrayBuffer\r\n  override val byteOffset: Int\r\n  override val byteLength: Int\r\n  fun
set(array: Uint8ClampedArray, offset: Int = definedExternally): Unit\r\n  fun set(array: Array<Byte>, offset: Int =
definedExternally): Unit\r\n  fun subarray(start: Int, end: Int): Uint8ClampedArray\r\n\r\n  companion object {\r\n
    val BYTES_PER_ELEMENT: Int\r\n  }\r\n}\r\n@kotlin.internal.InlineOnly inline operator fun
Uint8ClampedArray.get(index: Int): Byte = asDynamic()[index]\r\n@kotlin.internal.InlineOnly inline operator fun
Uint8ClampedArray.set(index: Int, value: Byte): Unit { asDynamic()[index] = value; }\r\n\r\n/**\r\n * Exposes the
JavaScript [Int16Array](https://developer.mozilla.org/en/docs/Web/API/Int16Array) to Kotlin\r\n
*\r\n\r\npublic external open class Int16Array : ArrayBufferView {\r\n  constructor(length: Int)\r\n
constructor(array:
Int16Array)\r\n  constructor(array: Array<Short>)\r\n  constructor(buffer: ArrayBuffer, byteOffset: Int =
definedExternally, length: Int = definedExternally)\r\n  open val length: Int\r\n  override val buffer:
ArrayBuffer\r\n  override val byteOffset: Int\r\n  override val byteLength: Int\r\n  fun set(array: Int16Array,
offset: Int = definedExternally): Unit\r\n  fun set(array: Array<Short>, offset: Int = definedExternally): Unit\r\n
fun subarray(start: Int, end: Int): Int16Array\r\n\r\n  companion object {\r\n    val BYTES_PER_ELEMENT:
Int\r\n  }\r\n}\r\n@kotlin.internal.InlineOnly inline operator fun Int16Array.get(index: Int): Short =
asDynamic()[index]\r\n@kotlin.internal.InlineOnly inline operator fun Int16Array.set(index: Int, value: Short): Unit
{ asDynamic()[index] = value; }\r\n\r\n/**\r\n * Exposes the JavaScript
[Uint16Array](https://developer.mozilla.org/en/docs/Web/API/Uint16Array) to Kotlin\r\n
*\r\n\r\npublic external open class Uint16Array : ArrayBufferView {\r\n  constructor(length: Int)\r\n
constructor(array: Uint16Array)\r\n
constructor(array: Array<Short>)\r\n  constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length:
Int = definedExternally)\r\n  open val length: Int\r\n  override val buffer: ArrayBuffer\r\n  override val
byteOffset: Int\r\n  override val byteLength: Int\r\n  fun set(array: Uint16Array, offset: Int = definedExternally):
Unit\r\n  fun set(array: Array<Short>, offset: Int = definedExternally): Unit\r\n  fun subarray(start: Int, end: Int):
Uint16Array\r\n\r\n  companion object {\r\n    val BYTES_PER_ELEMENT: Int\r\n  }
}\r\n}\r\n@kotlin.internal.InlineOnly inline operator fun Uint16Array.get(index: Int): Short =
asDynamic()[index]\r\n@kotlin.internal.InlineOnly inline operator fun Uint16Array.set(index: Int, value: Short):
Unit { asDynamic()[index] = value; }\r\n\r\n/**\r\n * Exposes the JavaScript
[Int32Array](https://developer.mozilla.org/en/docs/Web/API/Int32Array) to Kotlin\r\n
*\r\n\r\npublic external open class Int32Array : ArrayBufferView {\r\n  constructor(length: Int)\r\n
constructor(array: Int32Array)\r\n
constructor(array: Array<Int>)\r\n  constructor(buffer: ArrayBuffer, byteOffset: Int = definedExternally, length: Int
= definedExternally)\r\n  open val length: Int\r\n  override val buffer: ArrayBuffer\r\n  override val byteOffset:
Int\r\n  override val byteLength: Int\r\n  fun set(array: Int32Array, offset: Int = definedExternally): Unit\r\n
fun set(array: Array<Int>, offset: Int = definedExternally): Unit\r\n  fun subarray(start: Int, end: Int): Int32Array\r\n\r\n
companion object {\r\n    val BYTES_PER_ELEMENT: Int\r\n  }\r\n}\r\n@kotlin.internal.InlineOnly inline
operator fun Int32Array.get(index: Int): Int = asDynamic()[index]\r\n@kotlin.internal.InlineOnly inline operator fun
Int32Array.set(index: Int, value: Int): Unit { asDynamic()[index] = value; }\r\n\r\n/**\r\n * Exposes the JavaScript
[Uint32Array](https://developer.mozilla.org/en/docs/Web/API/Uint32Array) to Kotlin\r\n
*\r\n\r\npublic external open

```





open var borderColor: String\r\n open var borderImage: String\r\n open var borderImageOutset: String\r\n open var borderImageRepeat: String\r\n open var borderImageSlice: String\r\n open var borderImageSource: String\r\n open var borderImageWidth: String\r\n open var borderLeft: String\r\n open var borderLeftColor: String\r\n open var borderLeftStyle: String\r\n open var borderLeftWidth: String\r\n open var borderRadius: String\r\n open var borderRight: String\r\n open var borderRightColor: String\r\n open var borderRightStyle: String\r\n open var borderRightWidth: String\r\n open var borderSpacing: String\r\n open var borderStyle: String\r\n open var borderTop: String\r\n open var borderTopColor: String\r\n open var borderTopLeftRadius: String\r\n open var borderTopRightRadius: String\r\n open var borderTopStyle: String\r\n open var borderTopWidth: String\r\n open var borderWidth: String\r\n open var bottom: String\r\n open var boxDecorationBreak: String\r\n open var boxShadow: String\r\n open var boxSizing: String\r\n open var breakAfter: String\r\n open var breakBefore: String\r\n open var breakInside: String\r\n open var captionSide: String\r\n open var clear: String\r\n open var clip: String\r\n open var color: String\r\n open var columnCount: String\r\n open var columnFill: String\r\n open var columnGap: String\r\n open var columnRule: String\r\n open var columnRuleColor: String\r\n open var columnRuleStyle: String\r\n open var columnRuleWidth: String\r\n open var columnSpan: String\r\n open var columnWidth: String\r\n open var columns: String\r\n open var content: String\r\n open var counterIncrement: String\r\n open var counterReset: String\r\n open var cursor: String\r\n open var direction: String\r\n open var display: String\r\n open var emptyCells: String\r\n open var filter: String\r\n open var flex: String\r\n open var flexBasis: String\r\n open var flexDirection: String\r\n open var flexFlow: String\r\n open var flexGrow: String\r\n open var flexShrink: String\r\n open var flexWrap: String\r\n open var font: String\r\n open var fontFamily: String\r\n open var fontFeatureSettings: String\r\n open var fontKerning: String\r\n open var fontLanguageOverride: String\r\n open var fontSize: String\r\n open var fontSizeAdjust: String\r\n open var fontStretch: String\r\n open var fontStyle: String\r\n open var fontSynthesis: String\r\n open var fontVariant: String\r\n open var fontVariantAlternates: String\r\n open var fontVariantCaps: String\r\n open var fontVariantEastAsian: String\r\n open var fontVariantLigatures: String\r\n open var fontVariantNumeric: String\r\n open var fontVariantPosition: String\r\n open var fontWeight: String\r\n open var hangingPunctuation: String\r\n open var height: String\r\n open var hyphens: String\r\n open var imageOrientation: String\r\n open var imageRendering: String\r\n open var imageResolution: String\r\n open var imeMode: String\r\n open var justifyContent: String\r\n open var left: String\r\n open var letterSpacing: String\r\n open var lineBreak: String\r\n open var lineHeight: String\r\n open var listStyle: String\r\n open var listStyleImage: String\r\n open var listStylePosition: String\r\n open var listStyleType: String\r\n open var margin: String\r\n open var marginBottom: String\r\n open var marginLeft: String\r\n open var marginRight: String\r\n open var marginTop: String\r\n open var mark: String\r\n open var markAfter: String\r\n open var markBefore: String\r\n open var marks: String\r\n open var marqueeDirection: String\r\n open var marqueePlayCount: String\r\n open var marqueeSpeed: String\r\n open var marqueeStyle: String\r\n open var mask: String\r\n open var maskType: String\r\n open var maxHeight: String\r\n open var maxWidth: String\r\n open var minHeight: String\r\n open var minWidth: String\r\n open var navDown: String\r\n open var navIndex: String\r\n open var navLeft: String\r\n open var navRight: String\r\n open var navUp: String\r\n open var objectFit: String\r\n open var objectPosition: String\r\n open var opacity: String\r\n open var order: String\r\n open var orphans: String\r\n open var outline: String\r\n open var outlineColor: String\r\n open var outlineOffset: String\r\n open var outlineStyle: String\r\n open var outlineWidth: String\r\n open var overflowWrap: String\r\n open var overflowX: String\r\n open var overflowY: String\r\n open var padding: String\r\n open var paddingBottom: String\r\n open var paddingLeft: String\r\n open var paddingRight: String\r\n open var paddingTop: String\r\n open var pageBreakAfter: String\r\n open var pageBreakBefore: String\r\n open var pageBreakInside: String\r\n open var perspective: String\r\n open var perspectiveOrigin: String\r\n open var phonemes: String\r\n open var position: String\r\n open var quotes: String\r\n open var resize: String\r\n open var rest: String\r\n open var restAfter: String\r\n open var restBefore: String\r\n open var right: String\r\n open var tabSize: String\r\n open var tableLayout: String\r\n open var textAlign: String\r\n open var textAlignLast: String\r\n open var textCombineUpright:

```

String\r\n open var textDecoration: String\r\n open var textDecorationColor: String\r\n open var
textDecorationLine: String\r\n open var textDecorationStyle: String\r\n open var textIndent: String\r\n open
var textJustify: String\r\n open var textOrientation: String\r\n open var textOverflow: String\r\n open var
textShadow: String\r\n open var textTransform: String\r\n open var textUnderlinePosition: String\r\n open var
top: String\r\n open var transform: String\r\n open var transformOrigin: String\r\n open var transformStyle:
String\r\n open var transition: String\r\n open var transitionDelay: String\r\n open var transitionDuration:
String\r\n open var transitionProperty: String\r\n open var transitionTimingFunction: String\r\n open var
unicodeBidi: String\r\n open var verticalAlign: String\r\n open var visibility: String\r\n open var voiceBalance:
String\r\n open var voiceDuration: String\r\n open var voicePitch: String\r\n open var voicePitchRange:
String\r\n open var voiceRate: String\r\n open var voiceStress: String\r\n open var voiceVolume: String\r\n
open var whiteSpace: String\r\n open var widows: String\r\n open var width: String\r\n open var wordBreak:
String\r\n open var wordSpacing: String\r\n open var wordWrap: String\r\n open var writingMode: String\r\n
open var zIndex: String\r\n override fun item(index: Int): String\r\n fun getPropertyValue(property: String):
String\r\n fun getPropertyPriority(property: String): String\r\n fun setProperty(property: String, value: String,
priority: String = definedExternally): Unit\r\n fun setPropertyValue(property: String, value: String): Unit\r\n fun
setPropertyPriority(property: String, priority: String): Unit\r\n fun removeProperty(property: String):
String\r\n}\r\n@kotlin.internal.InlineOnly inline operator fun CSSStyleDeclaration.get(index: Int): String? =
asDynamic()[index]\r\n\r\npublic external abstract class MediaList : ItemArrayLike<String> {\r\n open var
mediaText: String\r\n override val length: Int\r\n override fun item(index: Int): String?\r\n fun
appendMedium(medium: String): Unit\r\n fun deleteMedium(medium: String):
Unit\r\n}\r\n@kotlin.internal.InlineOnly inline operator fun MediaList.get(index: Int): String? =
asDynamic()[index]\r\n\r\n/**\r\n * Exposes the JavaScript
[StyleSheet](https://developer.mozilla.org/en/docs/Web/API/StyleSheet) to Kotlin\r\n */\r\npublic external abstract
class StyleSheet {\r\n open val type: String\r\n open val href: String?\r\n open val ownerNode:
UnionElementOrProcessingInstruction?\r\n open val parentStyleSheet: StyleSheet?\r\n open val title: String?\r\n
open val media: MediaList\r\n open var disabled: Boolean\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[CSSStyleSheet](https://developer.mozilla.org/en/docs/Web/API/CSSStyleSheet) to Kotlin\r\n */\r\npublic external
abstract class CSSStyleSheet : StyleSheet {\r\n open val ownerRule: CSSRule?\r\n open val cssRules:
CSSRuleList\r\n fun insertRule(rule: String, index: Int): Int\r\n fun deleteRule(index: Int):
Unit\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[StyleSheetList](https://developer.mozilla.org/en/docs/Web/API/StyleSheetList) to Kotlin\r\n */\r\npublic external
abstract class StyleSheetList : ItemArrayLike<StyleSheet> {\r\n override val length: Int\r\n override fun
item(index: Int): StyleSheet?\r\n}\r\n\r\n@kotlin.internal.InlineOnly inline operator fun StyleSheetList.get(index: Int):
StyleSheet? = asDynamic()[index]\r\n\r\n/**\r\n * Exposes the JavaScript
[LinkStyle](https://developer.mozilla.org/en/docs/Web/API/LinkStyle) to Kotlin\r\n */\r\npublic external interface
LinkStyle {\r\n val sheet: StyleSheet?\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[CSSRuleList](https://developer.mozilla.org/en/docs/Web/API/CSSRuleList) to Kotlin\r\n */\r\npublic external
abstract class CSSRuleList : ItemArrayLike<CSSRule> {\r\n override val length: Int\r\n override fun
item(index: Int): CSSRule?\r\n}\r\n\r\n@kotlin.internal.InlineOnly inline operator fun CSSRuleList.get(index: Int):
CSSRule? = asDynamic()[index]\r\n\r\n/**\r\n * Exposes the JavaScript
[CSSRule](https://developer.mozilla.org/en/docs/Web/API/CSSRule) to Kotlin\r\n */\r\npublic external abstract
class CSSRule {\r\n open val type: Short\r\n open var cssText: String\r\n open val parentRule: CSSRule?\r\n
open val parentStyleSheet: CSSStyleSheet?\r\n\r\n companion object {\r\n val STYLE_RULE: Short\r\n
val CHARSET_RULE: Short\r\n val IMPORT_RULE: Short\r\n val MEDIA_RULE: Short\r\n val
FONT_FACE_RULE: Short\r\n val PAGE_RULE: Short\r\n val MARGIN_RULE: Short\r\n val
NAMESPACE_RULE: Short\r\n }\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[CSSStyleRule](https://developer.mozilla.org/en/docs/Web/API/CSSStyleRule) to Kotlin\r\n */\r\npublic external
abstract class CSSStyleRule : CSSRule {\r\n open var selectorText: String\r\n open val style:

```



```

UnionElementOrMouseEvent {
    open val region: String?
    open val screenX: Int
    open val screenY: Int
    open val pageX: Double
    open val pageY: Double
    open val clientX: Int
    open val clientY: Int
    open val offsetX: Double
    open val offsetY: Double
    open val ctrlKey: Boolean
    open val shiftKey: Boolean
    open val altKey: Boolean
    open val metaKey: Boolean
    open val button: Short
    open val buttons: Short
    open val relatedTarget: EventTarget?
    fun getModifierState(keyArg: String): Boolean
}

public external interface MouseEventInit : EventModifierInit {
    var screenX: Int? /* = 0 */
    get() = definedExternally
    set(value) = definedExternally
    var screenY: Int? /* = 0 */
    get() = definedExternally
    set(value) = definedExternally
    var clientX: Int? /* = 0 */
    get() = definedExternally
    set(value) = definedExternally
    var clientY: Int? /* = 0 */
    get() = definedExternally
    set(value) = definedExternally
    var button: Short? /* = 0 */
    get() = definedExternally
    set(value) = definedExternally
    var buttons: Short? /* = 0 */
    get() = definedExternally
    set(value) = definedExternally
    var relatedTarget: EventTarget? /* = null */
    get() = definedExternally
    set(value) = definedExternally
}

@kotlin.internal.InlineOnly
public inline fun MouseEventInit(
    screenX: Int? = 0,
    screenY: Int? = 0,
    clientX: Int? = 0,
    clientY: Int? = 0,
    button: Short? = 0,
    buttons: Short? = 0,
    relatedTarget: EventTarget? = null,
    ctrlKey: Boolean? = false,
    shiftKey: Boolean? = false,
    altKey: Boolean? = false,
    metaKey: Boolean? = false,
    modifierAltGraph: Boolean? = false,
    modifierCapsLock: Boolean? = false,
    modifierFn: Boolean? = false,
    modifierFnLock: Boolean? = false,
    modifierHyper: Boolean? = false,
    modifierNumLock: Boolean? = false,
    modifierScrollLock: Boolean? = false,
    modifierSuper: Boolean? = false,
    modifierSymbol: Boolean? = false,
    modifierSymbolLock: Boolean? = false,
    view: Window? = null,
    detail: Int? = 0,
    bubbles: Boolean? = false,
    cancelable: Boolean? = false,
    composed: Boolean? = false): MouseEventInit {
    val o = js("{}")
    o["screenX"] = screenX
    o["screenY"] = screenY
    o["clientX"] = clientX
    o["clientY"] = clientY
    o["button"] = button
    o["buttons"] = buttons
    o["relatedTarget"] = relatedTarget
    o["ctrlKey"] = ctrlKey
    o["shiftKey"] = shiftKey
    o["altKey"] = altKey
    o["metaKey"] = metaKey
    o["modifierAltGraph"] = modifierAltGraph
    o["modifierCapsLock"] = modifierCapsLock
    o["modifierFn"] = modifierFn
    o["modifierFnLock"] = modifierFnLock
    o["modifierHyper"] = modifierHyper
    o["modifierNumLock"] = modifierNumLock
    o["modifierScrollLock"] = modifierScrollLock
    o["modifierSuper"] = modifierSuper
    o["modifierSymbol"] = modifierSymbol
    o["modifierSymbolLock"] = modifierSymbolLock
    o["view"] = view
    o["detail"] = detail
    o["bubbles"] = bubbles
    o["cancelable"] = cancelable
    o["composed"] = composed
    return o
}

public external interface EventModifierInit : UIEventInit {
    var ctrlKey: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var shiftKey: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var altKey: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var metaKey: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var modifierAltGraph: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var modifierCapsLock: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var modifierFn: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var modifierFnLock: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var modifierHyper: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var modifierNumLock: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var modifierScrollLock: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var modifierSuper: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var modifierSymbol: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var modifierSymbolLock: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
}

@kotlin.internal.InlineOnly
public inline fun EventModifierInit(
    ctrlKey: Boolean? = false,
    shiftKey: Boolean? = false,
    altKey: Boolean? = false,
    metaKey: Boolean? = false,
    modifierAltGraph: Boolean? = false,
    modifierCapsLock: Boolean? = false,
    modifierFn: Boolean? = false,
    modifierFnLock: Boolean? =

```

```

false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false,
modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view:
Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? =
false): EventModifierInit {\r\n    val o = js("{}")\r\n\r\n    o["ctrlKey"] = ctrlKey\r\n    o["shiftKey"] =
shiftKey\r\n    o["altKey"] = altKey\r\n    o["metaKey"] = metaKey\r\n    o["modifierAltGraph"] =
modifierAltGraph\r\n    o["modifierCapsLock"] = modifierCapsLock\r\n    o["modifierFn"] = modifierFn\r\n
o["modifierFnLock"] = modifierFnLock\r\n    o["modifierHyper"] = modifierHyper\r\n
o["modifierNumLock"] = modifierNumLock\r\n    o["modifierScrollLock"] = modifierScrollLock\r\n
o["modifierSuper"] = modifierSuper\r\n    o["modifierSymbol"] = modifierSymbol\r\n
o["modifierSymbolLock"] = modifierSymbolLock\r\n    o["view"] = view\r\n    o["detail"] = detail\r\n
o["bubbles"] = bubbles\r\n    o["cancelable"] = cancelable\r\n    o["composed"] = composed\r\n\r\n    return
o\r\n}\r\n\r\n**\r\n * Exposes the JavaScript

```

```

[WheelEvent](https://developer.mozilla.org/en/docs/Web/API/WheelEvent) to Kotlin\r\n */\r\npublic external open
class WheelEvent(type: String, eventInitDict: WheelEventInit = definedExternally) : MouseEvent {\r\n    open val
deltaX: Double\r\n    open val deltaY: Double\r\n    open val deltaZ: Double\r\n    open val deltaMode: Int\r\n\r\n    companion object {\r\n        val DOM_DELTA_PIXEL: Int\r\n        val DOM_DELTA_LINE: Int\r\n        val
DOM_DELTA_PAGE: Int\r\n    }\r\n}\r\n\r\npublic external interface WheelEventInit : MouseEventInit {\r\n    var
deltaX: Double? /* = 0.0 */\r\n        get() = definedExternally\r\n        set(value) = definedExternally\r\n    var
deltaY: Double? /* = 0.0 */\r\n        get() = definedExternally\r\n        set(value) = definedExternally\r\n    var deltaZ:
Double? /* = 0.0 */\r\n        get() = definedExternally\r\n        set(value) = definedExternally\r\n    var deltaMode:
Int? /* = 0 */\r\n        get() = definedExternally\r\n        set(value) =
definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun WheelEventInit(deltaX: Double? =
0.0, deltaY: Double? = 0.0, deltaZ: Double? = 0.0, deltaMode: Int? = 0, screenX: Int? = 0, screenY: Int? = 0,
clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget: EventTarget? = null,
ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false,
modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false,
modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false,
modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false,
modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false,
cancelable: Boolean? = false, composed: Boolean? = false): WheelEventInit {\r\n    val o = js("{}")\r\n\r\n    o["deltaX"] = deltaX\r\n    o["deltaY"] = deltaY\r\n    o["deltaZ"] = deltaZ\r\n    o["deltaMode"] =
deltaMode\r\n    o["screenX"] = screenX\r\n    o["screenY"] = screenY\r\n    o["clientX"] = clientX\r\n
o["clientY"] = clientY\r\n    o["button"] = button\r\n    o["buttons"] = buttons\r\n    o["relatedTarget"] =
relatedTarget\r\n    o["ctrlKey"] = ctrlKey\r\n    o["shiftKey"] = shiftKey\r\n    o["altKey"] = altKey\r\n
o["metaKey"] = metaKey\r\n    o["modifierAltGraph"] = modifierAltGraph\r\n    o["modifierCapsLock"] =
modifierCapsLock\r\n    o["modifierFn"] = modifierFn\r\n    o["modifierFnLock"] = modifierFnLock\r\n
o["modifierHyper"] = modifierHyper\r\n    o["modifierNumLock"] = modifierNumLock\r\n
o["modifierScrollLock"] = modifierScrollLock\r\n    o["modifierSuper"] = modifierSuper\r\n
o["modifierSymbol"] = modifierSymbol\r\n    o["modifierSymbolLock"] = modifierSymbolLock\r\n    o["view"]
= view\r\n    o["detail"] = detail\r\n    o["bubbles"] = bubbles\r\n    o["cancelable"] = cancelable\r\n
o["composed"] = composed\r\n\r\n    return o\r\n}\r\n\r\n**\r\n * Exposes the JavaScript

```

```

[InputEvent](https://developer.mozilla.org/en/docs/Web/API/InputEvent) to Kotlin\r\n */\r\npublic external open
class InputEvent(type: String, eventInitDict: InputEventInit = definedExternally) : UIEvent {\r\n    open val data:
String\r\n    open val isComposing: Boolean\r\n}\r\n\r\npublic external interface InputEventInit : UIEventInit {\r\n
var data: String? /* = "" */\r\n        get() = definedExternally\r\n        set(value) = definedExternally\r\n    var
isComposing: Boolean? /* = false */\r\n        get() = definedExternally\r\n        set(value) =
definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun InputEventInit(data: String? = "",
isComposing: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable:

```

```

Boolean? = false, composed: Boolean? = false): InputEventInit {
    val o = js("{}")
    o["data"] = data
    o["isComposing"] = isComposing
    o["view"] = view
    o["detail"] = detail
    o["bubbles"] = bubbles
    o["cancelable"] = cancelable
    o["composed"] = composed
    return o
}
* Exposes the JavaScript [KeyboardEvent](https://developer.mozilla.org/en/docs/Web/API/KeyboardEvent) to Kotlin
public external open class KeyboardEvent(type: String, eventInitDict: KeyboardEventInit = definedExternally) : UIEvent {
    open val key: String
    open val code: String
    open val location: Int
    open val ctrlKey: Boolean
    open val shiftKey: Boolean
    open val altKey: Boolean
    open val metaKey: Boolean
    open val repeat: Boolean
    open val isComposing: Boolean
    open val charCode: Int
    open val keyCode: Int
    open val which: Int
    fun getModifierState(keyArg: String): Boolean
    companion object {
        val DOM_KEY_LOCATION_STANDARD: Int
        val DOM_KEY_LOCATION_LEFT: Int
        val DOM_KEY_LOCATION_RIGHT: Int
        val DOM_KEY_LOCATION_NUMPAD: Int
    }
}
public external interface KeyboardEventInit : EventModifierInit {
    var key: String? /* = "" */
    get() = definedExternally
    set(value) = definedExternally
    var code: String? /* = "" */
    get() = definedExternally
    set(value) = definedExternally
    var location: Int? /* = 0 */
    get() = definedExternally
    set(value) = definedExternally
    var repeat: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var isComposing: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
}
@kotlin.internal.InlineOnly
public inline fun KeyboardEventInit(key: String? = "", code: String? = "", location: Int? = 0, repeat: Boolean? = false, isComposing: Boolean? = false, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false, modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false, modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false, modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false, modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): KeyboardEventInit {
    val o = js("{}")
    o["key"] = key
    o["code"] = code
    o["location"] = location
    o["repeat"] = repeat
    o["isComposing"] = isComposing
    o["ctrlKey"] = ctrlKey
    o["shiftKey"] = shiftKey
    o["altKey"] = altKey
    o["metaKey"] = metaKey
    o["modifierAltGraph"] = modifierAltGraph
    o["modifierCapsLock"] = modifierCapsLock
    o["modifierFn"] = modifierFn
    o["modifierFnLock"] = modifierFnLock
    o["modifierHyper"] = modifierHyper
    o["modifierNumLock"] = modifierNumLock
    o["modifierScrollLock"] = modifierScrollLock
    o["modifierSuper"] = modifierSuper
    o["modifierSymbol"] = modifierSymbol
    o["modifierSymbolLock"] = modifierSymbolLock
    o["view"] = view
    o["detail"] = detail
    o["bubbles"] = bubbles
    o["cancelable"] = cancelable
    o["composed"] = composed
    return o
}
* Exposes the JavaScript [CompositionEvent](https://developer.mozilla.org/en/docs/Web/API/CompositionEvent) to Kotlin
public external open class CompositionEvent(type: String, eventInitDict: CompositionEventInit = definedExternally) : UIEvent {
    open val data: String
}
public external interface CompositionEventInit : UIEventInit {
    var data: String? /* = "" */
    get() = definedExternally
    set(value) = definedExternally
}
@kotlin.internal.InlineOnly
public inline fun CompositionEventInit(data: String? = "", view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): CompositionEventInit {
    val o = js("{}")
    o["data"] = data
    o["view"] = view
    o["detail"] = detail
    o["bubbles"] = bubbles
    o["cancelable"] = cancelable
    o["composed"] = composed
    return o
}
* Exposes the JavaScript [Event](https://developer.mozilla.org/en/docs/Web/API/Event) to Kotlin
public external open class Event(type: String, eventInitDict: EventInit = definedExternally) {
    open val type: String
    open val target: EventTarget?
    open val currentTarget: EventTarget?
    open val eventPhase: Short
    open val bubbles: Boolean
    open val cancelable: Boolean
    open val defaultPrevented: Boolean
    open val composed: Boolean
    open val isTrusted: Boolean
    open val timeStamp: Number
    fun composedPath(): Array<EventTarget>
    fun stopPropagation(): Unit
    fun stopImmediatePropagation(): Unit
    fun

```



```

onpointerup: ((PointerEvent) -> dynamic)?\r\n  override var onpointercancel: ((PointerEvent) -> dynamic)?\r\n
override var onpointerover: ((PointerEvent) -> dynamic)?\r\n  override var onpointerout: ((PointerEvent) ->
dynamic)?\r\n  override var onpointerenter: ((PointerEvent) -> dynamic)?\r\n  override var onpointerleave:
((PointerEvent) -> dynamic)?\r\n  override var onabort: ((Event) -> dynamic)?\r\n  override var onblur:
((FocusEvent) -> dynamic)?\r\n  override var onCancel: ((Event) -> dynamic)?\r\n  override var oncanplay:
((Event) -> dynamic)?\r\n  override var oncanplaythrough: ((Event) -> dynamic)?\r\n  override var onChange:
((Event) -> dynamic)?\r\n  override var onclick: ((MouseEvent) -> dynamic)?\r\n  override var onClose: ((Event) -
> dynamic)?\r\n  override var oncontextmenu: ((MouseEvent) -> dynamic)?\r\n  override var oncuechange:
((Event) -> dynamic)?\r\n  override var ondblclick: ((MouseEvent) -> dynamic)?\r\n  override var ondrag:
((DragEvent) -> dynamic)?\r\n  override var ondragend: ((DragEvent) -> dynamic)?\r\n  override var ondragenter:
((DragEvent) -> dynamic)?\r\n  override var ondragexit: ((DragEvent) -> dynamic)?\r\n  override var
ondragleave: ((DragEvent) -> dynamic)?\r\n  override var ondragover: ((DragEvent) -> dynamic)?\r\n  override
var ondragstart: ((DragEvent) -> dynamic)?\r\n  override var ondrop: ((DragEvent) -> dynamic)?\r\n  override var
ondurationchange: ((Event) -> dynamic)?\r\n  override var onemptied: ((Event) -> dynamic)?\r\n  override var
onended: ((Event) -> dynamic)?\r\n  override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\r\n
override var onfocus: ((FocusEvent) -> dynamic)?\r\n  override var oninput: ((InputEvent) -> dynamic)?\r\n
override var oninvalid: ((Event) -> dynamic)?\r\n  override var onkeydown: ((KeyboardEvent) -> dynamic)?\r\n
override var onkeypress: ((KeyboardEvent) -> dynamic)?\r\n  override var onkeyup: ((KeyboardEvent) ->
dynamic)?\r\n  override var onload: ((Event) -> dynamic)?\r\n  override var onloadeddata: ((Event) ->
dynamic)?\r\n  override var onloadedmetadata: ((Event) -> dynamic)?\r\n  override var onloadend: ((Event) ->
dynamic)?\r\n  override var onloadstart: ((ProgressEvent) -> dynamic)?\r\n  override var onmousedown:
((MouseEvent) -> dynamic)?\r\n  override var onmouseenter: ((MouseEvent) -> dynamic)?\r\n  override var
onmouseleave: ((MouseEvent) -> dynamic)?\r\n  override var onmousemove: ((MouseEvent) -> dynamic)?\r\n
override var onmouseout: ((MouseEvent) -> dynamic)?\r\n  override var onmouseover: ((MouseEvent) ->
dynamic)?\r\n  override var onmouseup: ((MouseEvent) -> dynamic)?\r\n  override var onwheel: ((WheelEvent) -
> dynamic)?\r\n  override var onpause: ((Event) -> dynamic)?\r\n  override var onplay: ((Event) -> dynamic)?\r\n
override var onplaying: ((Event) -> dynamic)?\r\n  override var onprogress: ((ProgressEvent) -> dynamic)?\r\n
override var onratechange: ((Event) -> dynamic)?\r\n  override var onreset: ((Event) -> dynamic)?\r\n  override
var onresize: ((Event) -> dynamic)?\r\n  override var onscroll: ((Event) -> dynamic)?\r\n  override var onseeked:
((Event) -> dynamic)?\r\n  override var onseeking: ((Event) -> dynamic)?\r\n  override var onselect: ((Event) ->
dynamic)?\r\n  override var onshow: ((Event) -> dynamic)?\r\n  override var onstalled: ((Event) -> dynamic)?\r\n
override var onsubmit: ((Event) -> dynamic)?\r\n  override var onsuspend: ((Event) -> dynamic)?\r\n  override
var ontimeupdate: ((Event) -> dynamic)?\r\n  override var ontoggle: ((Event) -> dynamic)?\r\n  override var
onvolumechange: ((Event) -> dynamic)?\r\n  override var onwaiting: ((Event) -> dynamic)?\r\n  override var
oncopy: ((ClipboardEvent) -> dynamic)?\r\n  override var oncut: ((ClipboardEvent) -> dynamic)?\r\n  override
var onpaste: ((ClipboardEvent) -> dynamic)?\r\n  override val fullscreenElement: Element?\r\n  override val
children: HTMLCollection\r\n  override val firstElementChild: Element?\r\n  override val lastElementChild:
Element?\r\n  override val childElementCount: Int\r\n  fun exitFullscreen(): Promise<Unit>\r\n  fun
getElementsByName(elementName: String): NodeList\r\n  fun open(type: String = definedExternally, replace:
String = definedExternally): Document\r\n  fun open(url: String, name: String, features: String): Window\r\n  fun
close(): Unit\r\n  fun write(vararg text: String): Unit\r\n  fun writeln(vararg text: String): Unit\r\n  fun
hasFocus(): Boolean\r\n  fun execCommand(commandId: String, showUI: Boolean = definedExternally, value:
String = definedExternally): Boolean\r\n  fun queryCommandEnabled(commandId: String): Boolean\r\n  fun
queryCommandIndeterm(commandId: String): Boolean\r\n  fun queryCommandState(commandId: String):
Boolean\r\n  fun queryCommandSupported(commandId: String): Boolean\r\n  fun
queryCommandValue(commandId: String): String\r\n  fun clear(): Unit\r\n  fun captureEvents(): Unit\r\n  fun
releaseEvents(): Unit\r\n  fun getElementsByTagName(qualifiedName: String): HTMLCollection\r\n  fun
getElementsByTagNameNS(namespace: String?, localName: String): HTMLCollection\r\n  fun

```

```

getElementsByClassName(classNames: String): HTMLCollection\r\n fun createElement(localName: String,
options: ElementCreationOptions = definedExternally): Element\r\n fun createElementNS(namespace: String?,
qualifiedName: String, options: ElementCreationOptions = definedExternally): Element\r\n fun
createDocumentFragment(): DocumentFragment\r\n fun createTextNode(data: String): Text\r\n fun
createCDATASection(data: String): CDATASection\r\n fun createComment(data: String): Comment\r\n fun
createProcessingInstruction(target: String, data: String): ProcessingInstruction\r\n fun importNode(node: Node,
deep: Boolean = definedExternally): Node\r\n fun adoptNode(node: Node): Node\r\n fun
createAttribute(localName: String): Attr\r\n fun createAttributeNS(namespace: String?, qualifiedName: String):
Attr\r\n fun createEvent(interface_: String): Event\r\n fun createRange(): Range\r\n fun
createNodeIterator(root: Node, whatToShow: Int = definedExternally, filter: NodeFilter? = definedExternally):
NodeIterator\r\n fun createNodeIterator(root: Node, whatToShow: Int = definedExternally, filter: ((Node) ->
Short)? = definedExternally): NodeIterator\r\n fun createTreeWalker(root: Node, whatToShow: Int =
definedExternally, filter: NodeFilter? = definedExternally): TreeWalker\r\n fun createTreeWalker(root: Node,
whatToShow: Int = definedExternally, filter: ((Node) -> Short)? = definedExternally): TreeWalker\r\n fun
elementFromPoint(x: Double, y: Double): Element?\r\n fun elementsFromPoint(x: Double, y: Double):
Array<Element>\r\n fun caretPositionFromPoint(x: Double, y: Double): CaretPosition?\r\n override fun
getElementById(elementId: String): Element?\r\n override fun prepend(vararg nodes: dynamic): Unit\r\n
override fun append(vararg nodes: dynamic): Unit\r\n override fun querySelector(selectors: String): Element?\r\n
override fun querySelectorAll(selectors: String): NodeList\r\n override fun getBoxQuads(options:
BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\r\n override fun convertQuadFromNode(quad:
dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\r\n override
fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* =
definedExternally */): DOMQuad\r\n override fun convertPointFromNode(point: DOMPointInit, from: dynamic,
options: ConvertCoordinateOptions /* = definedExternally */): DOMPoint\r\n}\r\n@kotlin.internal.InlineOnly
inline operator fun Document.get(name: String): dynamic = asDynamic()[name]\r\n\r\n**\r\n * Exposes the
JavaScript [Window](https://developer.mozilla.org/en/docs/Web/API/Window) to Kotlin\r\n */\r\npublic external
abstract class Window : EventTarget, GlobalEventHandlers, WindowEventHandlers,
WindowOrWorkerGlobalScope, WindowSessionStorage, WindowLocalStorage, GlobalPerformance,
UnionMessagePortOrWindow {\r\n override val performance: Performance\r\n open val window: Window\r\n
open val self: Window\r\n open val document: Document\r\n open var name: String\r\n open val location:
Location\r\n open val history: History\r\n open val customElements: CustomElementRegistry\r\n open val
locationbar: BarProp\r\n open val menubar: BarProp\r\n open val personalbar: BarProp\r\n open val scrollbars:
BarProp\r\n open val statusbar: BarProp\r\n open val toolbar: BarProp\r\n open var status: String\r\n open val
closed: Boolean\r\n open val frames: Window\r\n open val length: Int\r\n open val top: Window\r\n open var
opener: Any?\r\n open val parent: Window\r\n open val frameElement: Element?\r\n open val navigator:
Navigator\r\n open val applicationCache: ApplicationCache\r\n open val external: External\r\n open val
screen: Screen\r\n open val innerWidth: Int\r\n open val innerHeight: Int\r\n open val scrollX: Double\r\n
open val pageXOffset: Double\r\n open val scrollY: Double\r\n open val pageYOffset: Double\r\n open val
screenX: Int\r\n open val screenY: Int\r\n open val outerWidth: Int\r\n open val outerHeight: Int\r\n open val
devicePixelRatio: Double\r\n fun close(): Unit\r\n fun stop(): Unit\r\n fun focus(): Unit\r\n fun blur():
Unit\r\n fun open(url: String = definedExternally, target: String = definedExternally, features: String =
definedExternally): Window?\r\n fun alert(): Unit\r\n fun alert(message: String): Unit\r\n fun
confirm(message: String = definedExternally): Boolean\r\n fun prompt(message: String = definedExternally,
default: String = definedExternally): String?\r\n fun print(): Unit\r\n fun requestAnimationFrame(callback:
(Double) -> Unit): Int\r\n fun cancelAnimationFrame(handle: Int): Unit\r\n fun postMessage(message: Any?,
targetOrigin: String, transfer: Array<dynamic> = definedExternally): Unit\r\n fun captureEvents(): Unit\r\n fun
releaseEvents(): Unit\r\n fun matchMedia(query: String): MediaQueryList\r\n fun moveTo(x: Int, y: Int):
Unit\r\n fun moveBy(x: Int, y: Int): Unit\r\n fun resizeTo(x: Int, y: Int): Unit\r\n fun resizeBy(x: Int, y: Int):

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Unit fun scroll(options: ScrollToOptions = definedExternally): Unit fun scroll(x: Double, y: Double):
Unit fun scrollTo(options: ScrollToOptions = definedExternally): Unit fun scrollTo(x: Double, y:
Double): Unit fun scrollBy(options: ScrollToOptions = definedExternally): Unit fun scrollBy(x: Double,
y: Double): Unit fun getComputedStyle(elt: Element, pseudoElt: String? = definedExternally):
CSSStyleDeclaration } kotlin.internal.InlineOnly inline operator fun Window.get(name: String): dynamic =
asDynamic()[name] public external abstract class HTMLAllCollection { open val length: Int // fun
namedItem(name: String): UnionElementOrHTMLCollection? fun item(nameOrIndex: String =
definedExternally): UnionElementOrHTMLCollection? } kotlin.internal.InlineOnly inline operator fun
HTMLAllCollection.get(index: Int): Element? = asDynamic()[index] kotlin.internal.InlineOnly inline
operator fun HTMLAllCollection.get(name: String): UnionElementOrHTMLCollection? =
asDynamic()[name] ** Exposes the JavaScript
[HTMLFormControlsCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLFormControlsCollection)
to Kotlin public external abstract class HTMLFormControlsCollection : HTMLCollection { override
fun namedItem(name: String): UnionElementOrRadioNodeList? } kotlin.internal.InlineOnly override
inline operator fun HTMLFormControlsCollection.get(name: String): UnionElementOrRadioNodeList? =
asDynamic()[name] ** Exposes the JavaScript
[RadioNodeList](https://developer.mozilla.org/en/docs/Web/API/RadioNodeList) to Kotlin public external
abstract class RadioNodeList : NodeList, UnionElementOrRadioNodeList { open var value:
String } ** Exposes the JavaScript
[HTMLOptionsCollection](https://developer.mozilla.org/en/docs/Web/API/HTMLOptionsCollection) to Kotlin
public external abstract class HTMLOptionsCollection : HTMLCollection { override var length: Int
open var selectedIndex: Int fun add(element: UnionHTMLOptGroupElementOrHTMLOptionElement, before:
dynamic = definedExternally): Unit fun remove(index: Int): Unit } kotlin.internal.InlineOnly inline
operator fun HTMLOptionsCollection.set(index: Int, option: HTMLOptionElement?): Unit { asDynamic()[index] =
option; } ** Exposes the JavaScript
[HTMLInputElement](https://developer.mozilla.org/en/docs/Web/API/HTMLInputElement) to Kotlin public external
abstract class HTMLInputElement : Element, ElementCSSInlineStyle, GlobalEventHandlers,
DocumentAndElementEventHandlers, ElementContentEditable { open var title: String open var lang:
String open var translate: Boolean open var dir: String open val dataset: DOMStringMap open
var hidden: Boolean open var tabIndex: Int open var accessKey: String open val accessKeyLabel:
String open var draggable: Boolean open val dropzone: DOMTokenList open var contextMenu:
HTMLMenuElement? open var spellcheck: Boolean open var innerText: String open val
offsetParent: Element? open val offsetTop: Int open val offsetLeft: Int open val offsetWidth: Int
open val offsetHeight: Int fun click(): Unit fun focus(): Unit fun blur(): Unit fun
forceSpellCheck(): Unit } ** Exposes the JavaScript
[HTMLUnknownElement](https://developer.mozilla.org/en/docs/Web/API/HTMLUnknownElement) to Kotlin
public external abstract class HTMLUnknownElement : HTMLInputElement { } ** Exposes the
JavaScript [DOMStringMap](https://developer.mozilla.org/en/docs/Web/API/DOMStringMap) to Kotlin
public external abstract class DOMStringMap { kotlin.internal.InlineOnly inline operator fun
DOMStringMap.get(name: String): String? = asDynamic()[name] kotlin.internal.InlineOnly inline operator fun
DOMStringMap.set(name: String, value: String): Unit { asDynamic()[name] = value; } ** Exposes the
JavaScript [HTMLHtmlElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHtmlElement) to Kotlin
public external abstract class HTMLHtmlElement : HTMLInputElement { open var version:
String } ** Exposes the JavaScript
[HTMLHeadElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHeadElement) to Kotlin
public external abstract class HTMLHeadElement : HTMLInputElement { } ** Exposes the
JavaScript [HTMLTitleElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTitleElement) to Kotlin
public external abstract class HTMLTitleElement : HTMLInputElement { open var text:

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String\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript [HTMLElement](https://developer.mozilla.org/en/docs/Web/API/HTMLElement) to Kotlin\r\n \*/\r\n\r\npublic external abstract class HTMLElement : HTMLElement {\r\n open var href: String\r\n open var target: String\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript [HTMLLinkElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLinkElement) to Kotlin\r\n \*/\r\n\r\npublic external abstract class HTMLLinkElement : HTMLElement, LinkStyle {\r\n open var scope: String\r\n open var workerType: WorkerType\r\n open var href: String\r\n open var crossOrigin: String?\r\n open var rel: String\r\n @JsName("\r\nas\r\n") open var as\_: RequestDestination\r\n open val relList: DOMTokenList\r\n open var media: String\r\n open var nonce: String\r\n open var hreflang: String\r\n open var type: String\r\n open val sizes: DOMTokenList\r\n open varreferrerPolicy: String\r\n open var charset: String\r\n open var rev: String\r\n open var target: String\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript [HTMLMetaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMetaElement) to Kotlin\r\n \*/\r\n\r\npublic external abstract class HTMLMetaElement : HTMLElement {\r\n open var name: String\r\n open var httpEquiv: String\r\n open var content: String\r\n open var scheme: String\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript [HTMLStyleElement](https://developer.mozilla.org/en/docs/Web/API/HTMLStyleElement) to Kotlin\r\n \*/\r\n\r\npublic external abstract class HTMLStyleElement : HTMLElement, LinkStyle {\r\n open var media: String\r\n open var nonce: String\r\n open var type: String\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript [HTMLBodyElement](https://developer.mozilla.org/en/docs/Web/API/HTMLBodyElement) to Kotlin\r\n \*/\r\n\r\npublic external abstract class HTMLBodyElement : HTMLElement, WindowEventHandlers {\r\n open var text: String\r\n open var link: String\r\n open var vLink: String\r\n open var aLink: String\r\n open var bgColor: String\r\n open var background: String\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript [HTMLHeadingElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHeadingElement) to Kotlin\r\n \*/\r\n\r\npublic external abstract class HTMLHeadingElement : HTMLElement {\r\n open var align: String\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript [HTMLParagraphElement](https://developer.mozilla.org/en/docs/Web/API/HTMLParagraphElement) to Kotlin\r\n \*/\r\n\r\npublic external abstract class HTMLParagraphElement : HTMLElement {\r\n open var align: String\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript [HTMLHRElement](https://developer.mozilla.org/en/docs/Web/API/HTMLHRElement) to Kotlin\r\n \*/\r\n\r\npublic external abstract class HTMLHRElement : HTMLElement {\r\n open var align: String\r\n open var color: String\r\n open var noShade: Boolean\r\n open var size: String\r\n open var width: String\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript [HTMLPreElement](https://developer.mozilla.org/en/docs/Web/API/HTMLPreElement) to Kotlin\r\n \*/\r\n\r\npublic external abstract class HTMLPreElement : HTMLElement {\r\n open var width: Int\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript [HTMLQuoteElement](https://developer.mozilla.org/en/docs/Web/API/HTMLQuoteElement) to Kotlin\r\n \*/\r\n\r\npublic external abstract class HTMLQuoteElement : HTMLElement {\r\n open var cite: String\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript [HTMLLOListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLOListElement) to Kotlin\r\n \*/\r\n\r\npublic external abstract class HTMLLOListElement : HTMLElement {\r\n open var reversed: Boolean\r\n open var start: Int\r\n open var type: String\r\n open var compact: Boolean\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript [HTMLULListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLULListElement) to Kotlin\r\n \*/\r\n\r\npublic external abstract class HTMLULListElement : HTMLElement {\r\n open var compact: Boolean\r\n open var type: String\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript [HTMLLIElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLIElement) to Kotlin\r\n \*/\r\n\r\npublic external abstract class HTMLLIElement : HTMLElement {\r\n open var value: Int\r\n open var type: String\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript [HTMLDListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDListElement) to Kotlin\r\n \*/\r\n\r\npublic external abstract class HTMLDListElement : HTMLElement {\r\n open var compact: Boolean\r\n}\r\n\r\n/\*\*\r\n \* Exposes the JavaScript



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style: CSSStyleDeclaration\r\n  override var ongotpointercapture: ((PointerEvent) -> dynamic)?\r\n  override var onlostpointercapture: ((PointerEvent) -> dynamic)?\r\n  override var onpointerdown: ((PointerEvent) -> dynamic)?\r\n  override var onpointermove: ((PointerEvent) -> dynamic)?\r\n  override var onpointerup: ((PointerEvent) -> dynamic)?\r\n  override var onpointercancel: ((PointerEvent) -> dynamic)?\r\n  override var onpointerover: ((PointerEvent) -> dynamic)?\r\n  override var onpointerout: ((PointerEvent) -> dynamic)?\r\n  override var onpointerenter: ((PointerEvent) -> dynamic)?\r\n  override var onpointerleave: ((PointerEvent) -> dynamic)?\r\n  override var onabort: ((Event) -> dynamic)?\r\n  override var onblur: ((FocusEvent) -> dynamic)?\r\n  override var oncancel: ((Event) -> dynamic)?\r\n  override var oncanplay: ((Event) -> dynamic)?\r\n  override var oncanplaythrough: ((Event) -> dynamic)?\r\n  override var onchange: ((Event) -> dynamic)?\r\n  override var onclick: ((MouseEvent) -> dynamic)?\r\n  override var onclose: ((Event) -> dynamic)?\r\n  override var oncontextmenu: ((MouseEvent) -> dynamic)?\r\n  override var oncuechange: ((Event) -> dynamic)?\r\n  override var ondblclick: ((MouseEvent) -> dynamic)?\r\n  override var ondrag: ((DragEvent) -> dynamic)?\r\n  override var ondragend: ((DragEvent) -> dynamic)?\r\n  override var ondragenter: ((DragEvent) -> dynamic)?\r\n  override var ondragexit: ((DragEvent) -> dynamic)?\r\n  override var ondragleave: ((DragEvent) -> dynamic)?\r\n  override var ondragover: ((DragEvent) -> dynamic)?\r\n  override var ondragstart: ((DragEvent) -> dynamic)?\r\n  override var ondrop: ((DragEvent) -> dynamic)?\r\n  override var ondurationchange: ((Event) -> dynamic)?\r\n  override var onemptied: ((Event) -> dynamic)?\r\n  override var onended: ((Event) -> dynamic)?\r\n  override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\r\n  override var onfocus: ((FocusEvent) -> dynamic)?\r\n  override var oninput: ((InputEvent) -> dynamic)?\r\n  override var oninvalid: ((Event) -> dynamic)?\r\n  override var onkeydown: ((KeyboardEvent) -> dynamic)?\r\n  override var onkeypress: ((KeyboardEvent) -> dynamic)?\r\n  override var onkeyup: ((KeyboardEvent) -> dynamic)?\r\n  override var onload: ((Event) -> dynamic)?\r\n  override var onloadeddata: ((Event) -> dynamic)?\r\n  override var onloadedmetadata: ((Event) -> dynamic)?\r\n  override var onloadend: ((Event) -> dynamic)?\r\n  override var onloadstart: ((ProgressEvent) -> dynamic)?\r\n  override var onmousedown: ((MouseEvent) -> dynamic)?\r\n  override var onmouseenter: ((MouseEvent) -> dynamic)?\r\n  override var onmouseleave: ((MouseEvent) -> dynamic)?\r\n  override var onmousemove: ((MouseEvent) -> dynamic)?\r\n  override var onmouseout: ((MouseEvent) -> dynamic)?\r\n  override var onmouseover: ((MouseEvent) -> dynamic)?\r\n  override var onmouseup: ((MouseEvent) -> dynamic)?\r\n  override var onwheel: ((WheelEvent) -> dynamic)?\r\n  override var onpause: ((Event) -> dynamic)?\r\n  override var onplay: ((Event) -> dynamic)?\r\n  override var onplaying: ((Event) -> dynamic)?\r\n  override var onprogress: ((ProgressEvent) -> dynamic)?\r\n  override var onratechange: ((Event) -> dynamic)?\r\n  override var onreset: ((Event) -> dynamic)?\r\n  override var onresize: ((Event) -> dynamic)?\r\n  override var onscroll: ((Event) -> dynamic)?\r\n  override var onseeked: ((Event) -> dynamic)?\r\n  override var onseeking: ((Event) -> dynamic)?\r\n  override var onselect: ((Event) -> dynamic)?\r\n  override var onshow: ((Event) -> dynamic)?\r\n  override var onstalled: ((Event) -> dynamic)?\r\n  override var onsubmit: ((Event) -> dynamic)?\r\n  override var onsuspend: ((Event) -> dynamic)?\r\n  override var ontimeupdate: ((Event) -> dynamic)?\r\n  override var ontoggle: ((Event) -> dynamic)?\r\n  override var onvolumechange: ((Event) -> dynamic)?\r\n  override var onwaiting: ((Event) -> dynamic)?\r\n  override var oncopy: ((ClipboardEvent) -> dynamic)?\r\n  override var oncut: ((ClipboardEvent) -> dynamic)?\r\n  override var onpaste: ((ClipboardEvent) -> dynamic)?\r\n  override var contentEditable: String\r\n  override val isContentEditable: Boolean\r\n  override fun prepend(vararg nodes: dynamic): Unit\r\n  override fun append(vararg nodes: dynamic): Unit\r\n  override fun querySelector(selectors: String): Element?\r\n  override fun querySelectorAll(selectors: String): NodeList\r\n  override fun before(vararg nodes: dynamic): Unit\r\n  override fun after(vararg nodes: dynamic): Unit\r\n  override fun replaceWith(vararg nodes: dynamic): Unit\r\n  override fun remove(): Unit\r\n  override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */): Array<DOMQuad>\r\n  override fun convertQuadFromNode(quad: dynamic, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\r\n  override fun convertRectFromNode(rect: DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\r\n  override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* =

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-> dynamic)?\r\n override var ondblclick: ((MouseEvent) -> dynamic)?\r\n override var ondrag: ((DragEvent) ->
dynamic)?\r\n override var ondragend: ((DragEvent) -> dynamic)?\r\n override var ondragenter: ((DragEvent) ->
dynamic)?\r\n override var ondragexit: ((DragEvent) -> dynamic)?\r\n override var ondragleave: ((DragEvent) -
> dynamic)?\r\n override var ondragover: ((DragEvent) -> dynamic)?\r\n override var ondragstart: ((DragEvent)
-> dynamic)?\r\n override var ondrop: ((DragEvent) -> dynamic)?\r\n override var ondurationchange: ((Event) -
> dynamic)?\r\n override var onemptied: ((Event) -> dynamic)?\r\n override var onended: ((Event) ->
dynamic)?\r\n override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\r\n override var onfocus:
((FocusEvent) -> dynamic)?\r\n override var oninput: ((InputEvent) -> dynamic)?\r\n override var oninvalid:
((Event) -> dynamic)?\r\n override var onkeydown: ((KeyboardEvent) -> dynamic)?\r\n override var
onkeypress: ((KeyboardEvent) -> dynamic)?\r\n override var onkeyup: ((KeyboardEvent) -> dynamic)?\r\n
override var onload: ((Event) -> dynamic)?\r\n override var onloadeddata: ((Event) -> dynamic)?\r\n override
var onloadedmetadata: ((Event) -> dynamic)?\r\n override var onloadend: ((Event) -> dynamic)?\r\n override var
onloadstart: ((ProgressEvent) -> dynamic)?\r\n override var onmousedown: ((MouseEvent) -> dynamic)?\r\n
override var onmouseenter: ((MouseEvent) -> dynamic)?\r\n override var onmouseleave: ((MouseEvent) ->
dynamic)?\r\n override var onmousemove: ((MouseEvent) -> dynamic)?\r\n override var onmouseout:
((MouseEvent) -> dynamic)?\r\n override var onmouseover: ((MouseEvent) -> dynamic)?\r\n override var
onmouseup: ((MouseEvent) -> dynamic)?\r\n override var onwheel: ((WheelEvent) -> dynamic)?\r\n override
var onpause: ((Event) -> dynamic)?\r\n override var onplay: ((Event) -> dynamic)?\r\n override var onplaying:
((Event) -> dynamic)?\r\n override var onprogress: ((ProgressEvent) -> dynamic)?\r\n override var
onratechange: ((Event) -> dynamic)?\r\n override var onreset: ((Event) -> dynamic)?\r\n override var onresize:
((Event) -> dynamic)?\r\n override var onscroll: ((Event) -> dynamic)?\r\n override var onseeked: ((Event) ->
dynamic)?\r\n override var onseeking: ((Event) -> dynamic)?\r\n override var onselect: ((Event) ->
dynamic)?\r\n override var onshow: ((Event) -> dynamic)?\r\n override var onstalled: ((Event) -> dynamic)?\r\n
override var onsubmit: ((Event) -> dynamic)?\r\n override var onsuspend: ((Event) -> dynamic)?\r\n override var
ontimeupdate: ((Event) -> dynamic)?\r\n override var ontoggle: ((Event) -> dynamic)?\r\n override var
onvolumechange: ((Event) -> dynamic)?\r\n override var onwaiting: ((Event) -> dynamic)?\r\n override var
oncopy: ((ClipboardEvent) -> dynamic)?\r\n override var oncut: ((ClipboardEvent) -> dynamic)?\r\n override
var onpaste: ((ClipboardEvent) -> dynamic)?\r\n override var contentEditable: String\r\n override val
isContentEditable: Boolean\r\n override fun prepend(vararg nodes: dynamic): Unit\r\n override fun
append(vararg nodes: dynamic): Unit\r\n override fun querySelector(selectors: String): Element?\r\n override
fun querySelectorAll(selectors: String): NodeList\r\n override fun before(vararg nodes: dynamic): Unit\r\n
override fun after(vararg nodes: dynamic): Unit\r\n override fun replaceWith(vararg nodes: dynamic): Unit\r\n
override fun remove(): Unit\r\n override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */):
Array<DOMQuad>\r\n override fun convertQuadFromNode(quad: dynamic, from: dynamic, options:
ConvertCoordinateOptions /* = definedExternally */): DOMQuad\r\n override fun convertRectFromNode(rect:
DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\r\n
override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* =
definedExternally */): DOMPoint\r\n}\r\n\r\n**\r\n * Exposes the JavaScript
[HTMLTrackElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTrackElement) to Kotlin\r\n
*/\r\npublic external abstract class HTMLTrackElement : HTMLInputElement {\r\n open var kind: String\r\n open
var src: String\r\n open var srclang: String\r\n open var label: String\r\n open var default: Boolean\r\n open
val readyState: Short\r\n open val track: TextTrack\r\n\r\n companion object {\r\n val NONE: Short\r\n
val LOADING: Short\r\n val LOADED: Short\r\n val ERROR: Short\r\n } \r\n}\r\n\r\n**\r\n * Exposes
the JavaScript [HTMLMediaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMediaElement) to
Kotlin\r\n */\r\npublic external abstract class HTMLMediaElement : HTMLInputElement {\r\n open val error:
MediaError?\r\n open var src: String\r\n open var srcObject: dynamic\r\n open val currentSrc: String\r\n open
var crossOrigin: String?\r\n open val networkState: Short\r\n open var preload: String\r\n open val buffered:
TimeRanges\r\n open val readyState: Short\r\n open val seeking: Boolean\r\n open var currentTime:

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Double\r\n    open val duration: Double\r\n    open val paused: Boolean\r\n    open var defaultPlaybackRate:
Double\r\n    open var playbackRate: Double\r\n    open val played: TimeRanges\r\n    open val seekable:
TimeRanges\r\n    open val ended: Boolean\r\n    open var autoplay: Boolean\r\n    open var loop: Boolean\r\n
open var controls: Boolean\r\n    open var volume: Double\r\n    open var muted: Boolean\r\n    open var
defaultMuted: Boolean\r\n    open val audioTracks: AudioTrackList\r\n    open val videoTracks: VideoTrackList\r\n
open val textTracks: TextTrackList\r\n    fun load(): Unit\r\n    fun canPlayType(type: String):
CanPlayTypeResult\r\n    fun fastSeek(time: Double): Unit\r\n    fun getStartDate(): dynamic\r\n    fun play():
Promise<Unit>\r\n    fun pause(): Unit\r\n    fun addTextTrack(kind: TextTrackKind, label: String =
definedExternally, language: String = definedExternally): TextTrack\r\n\r\n    companion object {\r\n        val
NETWORK_EMPTY: Short\r\n        val NETWORK_IDLE: Short\r\n        val NETWORK_LOADING: Short\r\n
        val NETWORK_NO_SOURCE: Short\r\n        val HAVE_NOTHING: Short\r\n        val HAVE_METADATA:
Short\r\n        val HAVE_CURRENT_DATA: Short\r\n        val HAVE_FUTURE_DATA: Short\r\n        val
HAVE_ENOUGH_DATA: Short\r\n    }\r\n\r\n    * Exposes the JavaScript
[MediaError](https://developer.mozilla.org/en/docs/Web/API/MediaError) to Kotlin\r\n    */\r\npublic external
abstract class MediaError {\r\n    open val code: Short\r\n\r\n    companion object {\r\n        val
MEDIA_ERR_ABORTED: Short\r\n        val MEDIA_ERR_NETWORK: Short\r\n        val
MEDIA_ERR_DECODE: Short\r\n        val MEDIA_ERR_SRC_NOT_SUPPORTED: Short\r\n
    }\r\n\r\n    * Exposes the JavaScript
[AudioTrackList](https://developer.mozilla.org/en/docs/Web/API/AudioTrackList) to Kotlin\r\n    */\r\npublic
external abstract class AudioTrackList : EventTarget {\r\n    open val length: Int\r\n    open var onchange: ((Event) -
> dynamic)?\r\n    open var onaddtrack: ((TrackEvent) -> dynamic)?\r\n    open var onremovetrack: ((TrackEvent) -
> dynamic)?\r\n    fun getTrackById(id: String): AudioTrack?\r\n}\r\n@kotlin.internal.InlineOnly inline operator
fun AudioTrackList.get(index: Int): AudioTrack? = asDynamic()[index]\r\n\r\n    * Exposes the JavaScript
[AudioTrack](https://developer.mozilla.org/en/docs/Web/API/AudioTrack) to Kotlin\r\n    */\r\npublic external
abstract class AudioTrack : UnionAudioTrackOrTextTrackOrVideoTrack {\r\n    open val id: String\r\n    open val
kind: String\r\n    open val label: String\r\n    open val language: String\r\n    open var enabled:
Boolean\r\n}\r\n\r\n    * Exposes the JavaScript
[VideoTrackList](https://developer.mozilla.org/en/docs/Web/API/VideoTrackList) to Kotlin\r\n    */\r\npublic
external abstract class VideoTrackList : EventTarget {\r\n    open val length: Int\r\n    open val selectedIndex: Int\r\n
open var onchange: ((Event) -> dynamic)?\r\n    open var onaddtrack: ((TrackEvent) -> dynamic)?\r\n    open var
onremovetrack: ((TrackEvent) -> dynamic)?\r\n    fun getTrackById(id: String):
VideoTrack?\r\n}\r\n@kotlin.internal.InlineOnly inline operator fun VideoTrackList.get(index: Int): VideoTrack? =
asDynamic()[index]\r\n\r\n    * Exposes the JavaScript
[VideoTrack](https://developer.mozilla.org/en/docs/Web/API/VideoTrack) to Kotlin\r\n    */\r\npublic external
abstract class VideoTrack : UnionAudioTrackOrTextTrackOrVideoTrack {\r\n    open val id: String\r\n    open val
kind: String\r\n    open val label: String\r\n    open val language: String\r\n    open var selected:
Boolean\r\n}\r\n\r\n    * Exposes the JavaScript
[TextTrackList](https://developer.mozilla.org/en/docs/Web/API/TextTrackList) to Kotlin\r\n    */\r\npublic
external abstract class TextTrackList : EventTarget {\r\n    open val length: Int\r\n    open var onchange: ((Event) ->
dynamic)?\r\n    open var onaddtrack: ((TrackEvent) -> dynamic)?\r\n    open var
onremovetrack: ((TrackEvent) -> dynamic)?\r\n    fun getTrackById(id: String):
TextTrack?\r\n}\r\n@kotlin.internal.InlineOnly inline operator fun TextTrackList.get(index: Int): TextTrack? =
asDynamic()[index]\r\n\r\n    * Exposes the JavaScript
[TextTrack](https://developer.mozilla.org/en/docs/Web/API/TextTrack) to Kotlin\r\n    */\r\npublic external
abstract class TextTrack : EventTarget, UnionAudioTrackOrTextTrackOrVideoTrack {\r\n    open val kind:
TextTrackKind\r\n    open val label: String\r\n    open val language: String\r\n    open val id: String\r\n    open val
inBandMetadataTrackDispatchType: String\r\n    open var mode: TextTrackMode\r\n    open val cues:
TextTrackCueList?\r\n    open val activeCues: TextTrackCueList?\r\n    open var oncuechange: ((Event) ->
dynamic)?\r\n    fun addCue(cue: TextTrackCue): Unit\r\n    fun removeCue(cue: TextTrackCue):
Unit\r\n}\r\n\r\n    * Exposes the JavaScript

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Unit\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[HTMLTableRowElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableRowElement) to Kotlin\r\n
*/\r\n\r\npublic external abstract class HTMLTableRowElement : HTMLInputElement {\r\n    open val rowIndex: Int\r\n    open val sectionRowIndex: Int\r\n    open val cells: HTMLCollection\r\n    open var align: String\r\n    open var ch:
String\r\n    open var chOff: String\r\n    open var vAlign: String\r\n    open var bgColor: String\r\n    fun
insertCell(index: Int = definedExternally): HTMLInputElement\r\n    fun deleteCell(index: Int): Unit\r\n}\r\n\r\n/**\r\n *
Exposes the JavaScript
[HTMLTableCellElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTableCellElement) to Kotlin\r\n
*/\r\n\r\npublic external abstract class HTMLTableCellElement : HTMLInputElement {\r\n    open var colSpan: Int\r\n
open var rowSpan: Int\r\n    open var headers: String\r\n    open val cellIndex: Int\r\n    open var scope: String\r\n
open var abbr: String\r\n    open var align: String\r\n    open var axis: String\r\n    open var height: String\r\n    open
var width: String\r\n    open var ch: String\r\n    open var chOff: String\r\n    open var noWrap: Boolean\r\n    open
var vAlign: String\r\n    open var bgColor: String\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[HTMLFormElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFormElement) to Kotlin\r\n
*/\r\n\r\npublic external abstract class HTMLFormElement : HTMLInputElement {\r\n    open var acceptCharset: String\r\n
open var action: String\r\n    open var autocomplete: String\r\n    open var enctype: String\r\n    open var encoding:
String\r\n    open var method: String\r\n    open var name: String\r\n    open var noValidate: Boolean\r\n    open var
target: String\r\n    open val elements: HTMLFormControlsCollection\r\n    open val length: Int\r\n    fun submit():
Unit\r\n    fun reset(): Unit\r\n    fun checkValidity(): Boolean\r\n    fun reportValidity():
Boolean\r\n}\r\n\r\n@kotlin.internal.InlineOnly inline operator fun HTMLFormElement.get(index: Int): Element? =
asDynamic()[index]\r\n\r\n@kotlin.internal.InlineOnly inline operator fun HTMLFormElement.get(name: String):
UnionElementOrRadioNodeList? = asDynamic()[name]\r\n\r\n/**\r\n * Exposes the JavaScript
[HTMLLabelElement](https://developer.mozilla.org/en/docs/Web/API/HTMLLabelElement) to Kotlin\r\n
*/\r\n\r\npublic external abstract class HTMLLabelElement : HTMLInputElement {\r\n    open val form:
HTMLFormElement?\r\n    open var htmlFor: String\r\n    open val control: HTMLInputElement?\r\n}\r\n\r\n/**\r\n *
Exposes the JavaScript [HTMLInputElement](https://developer.mozilla.org/en/docs/Web/API/HTMLInputElement)
to Kotlin\r\n
*/\r\n\r\npublic external abstract class HTMLInputElement : HTMLInputElement {\r\n    open var accept:
String\r\n    open var alt: String\r\n    open var autocomplete: String\r\n    open var autofocus: Boolean\r\n    open var
defaultChecked: Boolean\r\n    open var checked: Boolean\r\n    open var dirName: String\r\n    open var disabled:
Boolean\r\n    open val form: HTMLFormElement?\r\n    open val files: FileList?\r\n    open var formAction:
String\r\n    open var formEnctype: String\r\n    open var formMethod: String\r\n    open var formNoValidate:
Boolean\r\n    open var formTarget: String\r\n    open var height: Int\r\n    open var indeterminate: Boolean\r\n
open var inputMode: String\r\n    open val list: HTMLInputElement?\r\n    open var max: String\r\n    open var
maxLength: Int\r\n    open var min: String\r\n    open var minLength: Int\r\n    open var multiple: Boolean\r\n    open
var name: String\r\n    open var pattern: String\r\n    open var placeholder: String\r\n    open var readOnly:
Boolean\r\n    open var required: Boolean\r\n    open var size: Int\r\n    open var src: String\r\n    open var step:
String\r\n    open var type: String\r\n    open var defaultValue: String\r\n    open var value: String\r\n    open var
valueAsDate: dynamic\r\n    open var valueAsNumber: Double\r\n    open var width: Int\r\n    open val willValidate:
Boolean\r\n    open val validity: ValidityState\r\n    open val validationMessage: String\r\n    open val labels:
NodeList\r\n    open var selectionStart: Int?\r\n    open var selectionEnd: Int?\r\n    open var selectionDirection:
String?\r\n    open var align: String\r\n    open var useMap: String\r\n    fun stepUp(n: Int = definedExternally):
Unit\r\n    fun stepDown(n: Int = definedExternally): Unit\r\n    fun checkValidity(): Boolean\r\n    fun
reportValidity(): Boolean\r\n    fun setCustomValidity(error: String): Unit\r\n    fun select(): Unit\r\n    fun
setRangeText(replacement: String): Unit\r\n    fun setRangeText(replacement: String, start: Int, end: Int,
selectionMode: SelectionMode = definedExternally): Unit\r\n    fun setSelectionRange(start: Int, end: Int, direction:
String = definedExternally): Unit\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[HTMLButtonElement](https://developer.mozilla.org/en/docs/Web/API/HTMLButtonElement) to Kotlin\r\n
*/\r\n\r\npublic external abstract class HTMLButtonElement : HTMLInputElement {\r\n    open var autofocus: Boolean\r\n

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open var disabled: Boolean\r\n open val form: HTMLFormElement?\r\n open var formAction: String\r\n open  
 var formEnctype: String\r\n open var formMethod: String\r\n open var formNoValidate: Boolean\r\n open var  
 formTarget: String\r\n open var name: String\r\n open var type: String\r\n open var value: String\r\n open var  
 menu: HTMLMenuElement?\r\n open val willValidate: Boolean\r\n open val validity: ValidityState\r\n open  
 val validationMessage: String\r\n open val labels: NodeList\r\n fun checkValidity(): Boolean\r\n fun  
 reportValidity(): Boolean\r\n fun setCustomValidity(error: String): Unit\r\n}\r\n\r\n\*\*\r\n \* Exposes the  
 JavaScript [HTMLSelectElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSelectElement) to Kotlin\r\n  
 \*/\r\n\r\npublic external abstract class HTMLSelectElement : HTMLInputElement, ItemArrayLike<Element> {\r\n  
 open var autocomplete: String\r\n open var autofocus: Boolean\r\n open var disabled: Boolean\r\n open val  
 form: HTMLFormElement?\r\n open var multiple: Boolean\r\n open var name: String\r\n open var required:  
 Boolean\r\n open var size: Int\r\n open val type: String\r\n open val options: HTMLOptionsCollection\r\n  
 override var length: Int\r\n open val selectedOptions: HTMLCollection\r\n open var selectedIndex: Int\r\n open  
 var value: String\r\n open val willValidate: Boolean\r\n open val validity: ValidityState\r\n open val  
 validationMessage: String\r\n open val labels: NodeList\r\n override fun item(index: Int): Element?\r\n fun  
 namedItem(name: String): HTMLOptionElement?\r\n fun add(element:  
 UnionHTMLOptGroupElementOrHTMLOptionElement, before: dynamic = definedExternally): Unit\r\n fun  
 remove(index: Int): Unit\r\n fun checkValidity(): Boolean\r\n fun reportValidity(): Boolean\r\n fun  
 setCustomValidity(error: String): Unit\r\n}\r\n\r\n@kotlin.internal.InlineOnly inline operator fun  
 HTMLSelectElement.get(index: Int): Element? = asDynamic()[index]\r\n\r\n@kotlin.internal.InlineOnly inline operator  
 fun HTMLSelectElement.set(index: Int, option: HTMLOptionElement?): Unit { asDynamic()[index] = option;  
 }\r\n\r\n\r\n\*\*\r\n \* Exposes the JavaScript  
 [HTMLDataListElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDataListElement) to Kotlin\r\n  
 \*/\r\n\r\npublic external abstract class HTMLDataListElement : HTMLInputElement {\r\n open val options:  
 HTMLCollection\r\n}\r\n\r\n\r\n\*\*\r\n \* Exposes the JavaScript  
 [HTMLOptGroupElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOptGroupElement) to Kotlin\r\n  
 \*/\r\n\r\npublic external abstract class HTMLOptGroupElement : HTMLInputElement,  
 UnionHTMLOptGroupElementOrHTMLOptionElement {\r\n open var disabled: Boolean\r\n open var label:  
 String\r\n}\r\n\r\n\r\n\*\*\r\n \* Exposes the JavaScript  
 [HTMLOptionElement](https://developer.mozilla.org/en/docs/Web/API/HTMLOptionElement) to Kotlin\r\n  
 \*/\r\n\r\npublic external abstract class HTMLOptionElement : HTMLInputElement,  
 UnionHTMLOptGroupElementOrHTMLOptionElement {\r\n open var disabled: Boolean\r\n open val form:  
 HTMLFormElement?\r\n open var label: String\r\n open var defaultSelected: Boolean\r\n open var selected:  
 Boolean\r\n open var value: String\r\n open var text: String\r\n open val index: Int\r\n}\r\n\r\n\r\n\*\*\r\n \* Exposes  
 the JavaScript [Option](https://developer.mozilla.org/en/docs/Web/API/Option) to Kotlin\r\n  
 \*/\r\n\r\npublic external  
 open class Option(text: String = definedExternally, value: String = definedExternally, defaultSelected: Boolean =  
 definedExternally, selected: Boolean = definedExternally) : HTMLOptionElement {\r\n override val children:  
 HTMLCollection\r\n override val firstElementChild: Element?\r\n override val lastElementChild: Element?\r\n  
 override val childElementCount: Int\r\n override val previousElementSibling: Element?\r\n override val  
 nextElementSibling: Element?\r\n override val assignedSlot: HTMLSlotElement?\r\n override val style:  
 CSSStyleDeclaration\r\n override var ongotpointercapture: ((PointerEvent) -> dynamic)?\r\n override var  
 onlostpointercapture: ((PointerEvent) -> dynamic)?\r\n override var onpointerdown: ((PointerEvent) ->  
 dynamic)?\r\n override var onpointermove: ((PointerEvent) -> dynamic)?\r\n override var onpointerup:  
 ((PointerEvent) -> dynamic)?\r\n override var onpointercancel: ((PointerEvent) -> dynamic)?\r\n override var  
 onpointerover: ((PointerEvent) -> dynamic)?\r\n override var onpointerout: ((PointerEvent) -> dynamic)?\r\n  
 override var onpointerenter: ((PointerEvent) -> dynamic)?\r\n override var onpointerleave: ((PointerEvent) ->  
 dynamic)?\r\n override var onabort: ((Event) -> dynamic)?\r\n override var onblur: ((FocusEvent) ->  
 dynamic)?\r\n override var oncancel: ((Event) -> dynamic)?\r\n override var oncanplay: ((Event) ->  
 dynamic)?\r\n override var oncanplaythrough: ((Event) -> dynamic)?\r\n override var onchange: ((Event) ->

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dynamic)?\r\n override var onclick: ((MouseEvent) -> dynamic)?\r\n override var onclick: ((Event) ->
dynamic)?\r\n override var oncontextmenu: ((MouseEvent) -> dynamic)?\r\n override var onclick: ((Event)
-> dynamic)?\r\n override var ondblclick: ((MouseEvent) -> dynamic)?\r\n override var onclick: ((Event) ->
dynamic)?\r\n override var ondrag: ((DragEvent) ->
dynamic)?\r\n override var ondragend: ((DragEvent) -> dynamic)?\r\n override var ondragenter: ((DragEvent) ->
dynamic)?\r\n override var ondragexit: ((DragEvent) -> dynamic)?\r\n override var ondragleave: ((DragEvent) -
> dynamic)?\r\n override var ondragover: ((DragEvent) -> dynamic)?\r\n override var ondragstart: ((DragEvent)
-> dynamic)?\r\n override var ondrop: ((DragEvent) -> dynamic)?\r\n override var ondurationchange: ((Event) -
> dynamic)?\r\n override var onemptied: ((Event) -> dynamic)?\r\n override var onended: ((Event) ->
dynamic)?\r\n override var onerror: ((dynamic, String, Int, Int, Any?) -> dynamic)?\r\n override var onfocus:
((FocusEvent) -> dynamic)?\r\n override var oninput: ((InputEvent) -> dynamic)?\r\n override var oninvalid:
((Event) -> dynamic)?\r\n override var onkeydown: ((KeyboardEvent) -> dynamic)?\r\n override var
onkeypress: ((KeyboardEvent) -> dynamic)?\r\n override var onkeyup: ((KeyboardEvent) -> dynamic)?\r\n
override var onload: ((Event) -> dynamic)?\r\n override var onloadeddata: ((Event) -> dynamic)?\r\n override
var onloadedmetadata: ((Event) -> dynamic)?\r\n override var onloadend: ((Event) -> dynamic)?\r\n override var
onloadstart: ((ProgressEvent) -> dynamic)?\r\n override var onmousedown: ((MouseEvent) -> dynamic)?\r\n
override var onmouseenter: ((MouseEvent) -> dynamic)?\r\n override var onmouseleave: ((MouseEvent) ->
dynamic)?\r\n override var onmousemove: ((MouseEvent) -> dynamic)?\r\n override var onmouseout:
((MouseEvent) -> dynamic)?\r\n override var onmouseover: ((MouseEvent) -> dynamic)?\r\n override var
onmouseup: ((MouseEvent) -> dynamic)?\r\n override var onwheel: ((WheelEvent) -> dynamic)?\r\n override
var onpause: ((Event) -> dynamic)?\r\n override var onplay: ((Event) -> dynamic)?\r\n override var onplaying:
((Event) -> dynamic)?\r\n override var onprogress: ((ProgressEvent) -> dynamic)?\r\n override var
onratechange: ((Event) -> dynamic)?\r\n override var onreset: ((Event) -> dynamic)?\r\n override var onresize:
((Event) -> dynamic)?\r\n override var onscroll: ((Event) -> dynamic)?\r\n override var onseeked: ((Event) ->
dynamic)?\r\n override var onseeking: ((Event) -> dynamic)?\r\n override var onselect: ((Event) ->
dynamic)?\r\n override var onshow: ((Event) -> dynamic)?\r\n override var onstalled: ((Event) -> dynamic)?\r\n
override var onsubmit: ((Event) -> dynamic)?\r\n override var onsuspend: ((Event) -> dynamic)?\r\n override var
ontimeupdate: ((Event) -> dynamic)?\r\n override var ontoggle: ((Event) -> dynamic)?\r\n override var
onvolumechange: ((Event) -> dynamic)?\r\n override var onwaiting: ((Event) -> dynamic)?\r\n override var
oncopy: ((ClipboardEvent) -> dynamic)?\r\n override var oncut: ((ClipboardEvent) -> dynamic)?\r\n override
var onpaste: ((ClipboardEvent) -> dynamic)?\r\n override var contentEditable: String\r\n override val
isContentEditable: Boolean\r\n override fun prepend(vararg nodes: dynamic): Unit\r\n override fun
append(vararg nodes: dynamic): Unit\r\n override fun querySelector(selectors: String): Element?\r\n override
fun querySelectorAll(selectors: String): NodeList\r\n override fun before(vararg nodes: dynamic): Unit\r\n
override fun after(vararg nodes: dynamic): Unit\r\n override fun replaceWith(vararg nodes: dynamic): Unit\r\n
override fun remove(): Unit\r\n override fun getBoxQuads(options: BoxQuadOptions /* = definedExternally */):
Array<DOMQuad>\r\n override fun convertQuadFromNode(quad: dynamic, from: dynamic, options:
ConvertCoordinateOptions /* = definedExternally */): DOMQuad\r\n override fun convertRectFromNode(rect:
DOMRectReadOnly, from: dynamic, options: ConvertCoordinateOptions /* = definedExternally */): DOMQuad\r\n
override fun convertPointFromNode(point: DOMPointInit, from: dynamic, options: ConvertCoordinateOptions /* =
definedExternally */): DOMPoint\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[HTMLTextAreaElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTextAreaElement) to Kotlin\r\n
*/\r\npublic external abstract class HTMLTextAreaElement : HTMLInputElement {\r\n open var autocomplete:
String\r\n open var autofocus: Boolean\r\n open var cols: Int\r\n open var dirName: String\r\n open var
disabled: Boolean\r\n open val form: HTMLFormElement?\r\n open var inputMode: String\r\n open var
maxLength: Int\r\n open var minLength: Int\r\n open var name: String\r\n open var placeholder: String\r\n
open var readOnly: Boolean\r\n open var required: Boolean\r\n open var rows: Int\r\n open var wrap: String\r\n
open val type: String\r\n open var defaultValue: String\r\n open var value: String\r\n open val textLength:
Int\r\n open val willValidate: Boolean\r\n open val validity: ValidityState\r\n open val validationMessage:

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String\r\n open val labels: NodeList\r\n open var selectionStart: Int?\r\n open var selectionEnd: Int?\r\n open var selectionDirection: String?\r\n fun checkValidity(): Boolean\r\n fun reportValidity(): Boolean\r\n fun setCustomValidity(error: String): Unit\r\n fun select(): Unit\r\n fun setRangeText(replacement: String): Unit\r\n fun setRangeText(replacement: String, start: Int, end: Int, selectionMode: SelectionMode = definedExternally): Unit\r\n fun setSelectionRange(start: Int, end: Int, direction: String = definedExternally): Unit\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript

[HTMLKeygenElement](<https://developer.mozilla.org/en/docs/Web/API/HTMLKeygenElement>) to Kotlin\r\n \*  
\r\npublic external abstract class HTMLKeygenElement : HTMLElement {\r\n open var autofocus: Boolean\r\n open var challenge: String\r\n open var disabled: Boolean\r\n open val form: HTMLFormElement?\r\n open var keytype: String\r\n open var name: String\r\n open val type: String\r\n open val willValidate: Boolean\r\n open val validity: ValidityState\r\n open val validationMessage: String\r\n open val labels: NodeList\r\n fun checkValidity(): Boolean\r\n fun reportValidity(): Boolean\r\n fun setCustomValidity(error: String): Unit\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript

[HTMLOutputElement](<https://developer.mozilla.org/en/docs/Web/API/HTMLOutputElement>) to Kotlin\r\n \*  
\r\npublic external abstract class HTMLOutputElement : HTMLElement {\r\n open val htmlFor: DOMTokenList\r\n open val form: HTMLFormElement?\r\n open var name: String\r\n open val type: String\r\n open var defaultValue: String\r\n open var value: String\r\n open val willValidate: Boolean\r\n open val validity: ValidityState\r\n open val validationMessage: String\r\n open val labels: NodeList\r\n fun checkValidity(): Boolean\r\n fun reportValidity(): Boolean\r\n fun setCustomValidity(error: String): Unit\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript

[HTMLProgressElement](<https://developer.mozilla.org/en/docs/Web/API/HTMLProgressElement>) to Kotlin\r\n \*  
\r\npublic external abstract class HTMLProgressElement : HTMLElement {\r\n open var value: Double\r\n open var max: Double\r\n open val position: Double\r\n open val labels: NodeList\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript

[HTMLMeterElement](<https://developer.mozilla.org/en/docs/Web/API/HTMLMeterElement>) to Kotlin\r\n \*  
\r\npublic external abstract class HTMLMeterElement : HTMLElement {\r\n open var value: Double\r\n open var min: Double\r\n open var max: Double\r\n open var low: Double\r\n open var high: Double\r\n open var optimum: Double\r\n open val labels: NodeList\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript

[HTMLFieldSetElement](<https://developer.mozilla.org/en/docs/Web/API/HTMLFieldSetElement>) to Kotlin\r\n \*  
\r\npublic external abstract class HTMLFieldSetElement : HTMLElement {\r\n open var disabled: Boolean\r\n open val form: HTMLFormElement?\r\n open var name: String\r\n open val type: String\r\n open val elements: HTMLCollection\r\n open val willValidate: Boolean\r\n open val validity: ValidityState\r\n open val validationMessage: String\r\n fun checkValidity(): Boolean\r\n fun reportValidity(): Boolean\r\n fun setCustomValidity(error: String): Unit\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript

[HTMLLegendElement](<https://developer.mozilla.org/en/docs/Web/API/HTMLLegendElement>) to Kotlin\r\n \*  
\r\npublic external abstract class HTMLLegendElement : HTMLElement {\r\n open val form: HTMLFormElement?\r\n open var align: String\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript

[ValidityState](<https://developer.mozilla.org/en/docs/Web/API/ValidityState>) to Kotlin\r\n \*  
\r\npublic external abstract class ValidityState {\r\n open val valueMissing: Boolean\r\n open val typeMismatch: Boolean\r\n open val patternMismatch: Boolean\r\n open val tooLong: Boolean\r\n open val tooShort: Boolean\r\n open val rangeUnderflow: Boolean\r\n open val rangeOverflow: Boolean\r\n open val stepMismatch: Boolean\r\n open val badInput: Boolean\r\n open val customError: Boolean\r\n open val valid: Boolean\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript

[HTMLDetailsElement](<https://developer.mozilla.org/en/docs/Web/API/HTMLDetailsElement>) to Kotlin\r\n \*  
\r\npublic external abstract class HTMLDetailsElement : HTMLElement {\r\n open var open: Boolean\r\n}\r\n\r\n\r\npublic external abstract class HTMLMenuElement : HTMLElement {\r\n open var type: String\r\n open var label: String\r\n open var compact: Boolean\r\n}\r\n\r\n\r\npublic external abstract class HTMLMenuItemElement : HTMLElement {\r\n open var type: String\r\n open var label: String\r\n open var icon: String\r\n open var disabled: Boolean\r\n open var checked: Boolean\r\n open var radiogroup: String\r\n}

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open var default: Boolean\r\n}\r\n\r\npublic external open class RelatedEvent(type: String, eventInitDict:
RelatedEventInit = definedExternally) : Event {\r\n  open val relatedTarget: EventTarget?\r\n}\r\n\r\npublic
external interface RelatedEventInit : EventInit {\r\n  var relatedTarget: EventTarget? /* = null */\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
RelatedEventInit(relatedTarget: EventTarget? = null, bubbles: Boolean? = false, cancelable: Boolean? = false,
composed: Boolean? = false): RelatedEventInit {\r\n  val o = js("{}")\r\n  o["relatedTarget"] =
relatedTarget\r\n  o["bubbles"] = bubbles\r\n  o["cancelable"] = cancelable\r\n  o["composed"] =
composed\r\n\r\n  return o\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[HTMLDialogElement](https://developer.mozilla.org/en/docs/Web/API/HTMLDialogElement) to Kotlin\r\n
*/\r\n\r\npublic external abstract class HTMLDialogElement : HTMLElement {\r\n  open var open: Boolean\r\n  open
var returnValue: String\r\n  fun show(anchor: UnionElementOrMouseEvent = definedExternally): Unit\r\n  fun
showModal(anchor: UnionElementOrMouseEvent = definedExternally): Unit\r\n  fun close(returnValue: String =
definedExternally): Unit\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[HTMLScriptElement](https://developer.mozilla.org/en/docs/Web/API/HTMLScriptElement) to Kotlin\r\n
*/\r\n\r\npublic external abstract class HTMLScriptElement : HTMLElement, HTMLScriptElement {\r\n  open
var src: String\r\n  open var type: String\r\n  open var charset: String\r\n  open var async: Boolean\r\n  open var
defer: Boolean\r\n  open var crossOrigin: String?\r\n  open var text: String\r\n  open var nonce: String\r\n  open
var event: String\r\n  open var htmlFor: String\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[HTMLTemplateElement](https://developer.mozilla.org/en/docs/Web/API/HTMLTemplateElement) to Kotlin\r\n
*/\r\n\r\npublic external abstract class HTMLTemplateElement : HTMLElement {\r\n  open val content:
DocumentFragment\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[HTMLSlotElement](https://developer.mozilla.org/en/docs/Web/API/HTMLSlotElement) to Kotlin\r\n
*/\r\n\r\npublic
external abstract class HTMLSlotElement : HTMLElement {\r\n  open var name: String\r\n  fun
assignedNodes(options: AssignedNodesOptions = definedExternally): Array<Node>\r\n}\r\n\r\npublic external
interface AssignedNodesOptions {\r\n  var flatten: Boolean? /* = false */\r\n  get() = definedExternally\r\n
set(value) = definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
AssignedNodesOptions(flatten: Boolean? = false): AssignedNodesOptions {\r\n  val o = js("{}")\r\n\r\n
o["flatten"] = flatten\r\n\r\n  return o\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[HTMLCanvasElement](https://developer.mozilla.org/en/docs/Web/API/HTMLCanvasElement) to Kotlin\r\n
*/\r\n\r\npublic external abstract class HTMLCanvasElement : HTMLElement, TexImageSource {\r\n  open var width:
Int\r\n  open var height: Int\r\n  fun getContext(contextId: String, vararg arguments: Any?):
RenderingContext?\r\n  fun toDataURL(type: String = definedExternally, quality: Any? = definedExternally):
String\r\n  fun toBlob(_callback: (Blob?) -> Unit, type: String = definedExternally, quality: Any? =
definedExternally): Unit\r\n}\r\n\r\npublic external interface CanvasRenderingContext2DSettings {\r\n  var alpha:
Boolean? /* = true */\r\n  get() = definedExternally\r\n  set(value) =
definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
CanvasRenderingContext2DSettings(alpha: Boolean? = true): CanvasRenderingContext2DSettings {\r\n  val o =
js("{}")\r\n  o["alpha"] = alpha\r\n\r\n  return o\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[CanvasRenderingContext2D](https://developer.mozilla.org/en/docs/Web/API/CanvasRenderingContext2D) to
Kotlin\r\n
*/\r\n\r\npublic external abstract class CanvasRenderingContext2D : CanvasState, CanvasTransform,
CanvasCompositing, CanvasImageSmoothing, CanvasFillStrokeStyles, CanvasShadowStyles, CanvasFilters,
CanvasRect, CanvasDrawPath, CanvasUserInterface, CanvasText, CanvasDrawImage, CanvasHitRegion,
CanvasImageData, CanvasPathDrawingStyles, CanvasTextDrawingStyles, CanvasPath, RenderingContext {\r\n
open val canvas: HTMLCanvasElement\r\n}\r\n\r\npublic external interface CanvasState {\r\n  fun save(): Unit\r\n
fun restore(): Unit\r\n}\r\n\r\npublic external interface CanvasTransform {\r\n  fun scale(x: Double, y: Double):
Unit\r\n  fun rotate(angle: Double): Unit\r\n  fun translate(x: Double, y: Double): Unit\r\n  fun transform(a:
Double, b: Double, c: Double, d: Double, e: Double, f: Double): Unit\r\n  fun getTransform(): DOMMatrix\r\n
fun setTransform(a: Double, b: Double, c: Double, d: Double, e: Double, f: Double): Unit\r\n  fun

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setTransform(transform: dynamic = definedExternally): Unit\r\n fun resetTransform(): Unit\r\n}\r\n\r\npublic
external interface CanvasCompositing {\r\n var globalAlpha: Double\r\n var globalCompositeOperation:
String\r\n}\r\n\r\npublic external interface CanvasImageSmoothing {\r\n var imageSmoothingEnabled:
Boolean\r\n var imageSmoothingQuality: ImageSmoothingQuality\r\n}\r\n\r\npublic external interface
CanvasFillStrokeStyles {\r\n var strokeStyle: dynamic\r\n var fillStyle: dynamic\r\n fun
createLinearGradient(x0: Double, y0: Double, x1: Double, y1: Double): CanvasGradient\r\n fun
createRadialGradient(x0: Double, y0: Double, r0: Double, x1: Double, y1: Double, r1: Double): CanvasGradient\r\n
fun createPattern(image: dynamic, repetition: String): CanvasPattern?\r\n}\r\n\r\npublic external interface
CanvasShadowStyles {\r\n var shadowOffsetX: Double\r\n var shadowOffsetY: Double\r\n var shadowBlur:
Double\r\n var shadowColor: String\r\n}\r\n\r\npublic external interface CanvasFilters {\r\n var filter:
String\r\n}\r\n\r\npublic external interface CanvasRect {\r\n fun clearRect(x: Double, y: Double, w: Double, h:
Double): Unit\r\n fun fillRect(x: Double, y: Double, w: Double, h: Double): Unit\r\n fun strokeRect(x: Double,
y: Double, w: Double, h: Double): Unit\r\n}\r\n\r\npublic external interface CanvasDrawPath {\r\n fun
beginPath(): Unit\r\n fun fill(fillRule: CanvasFillRule = definedExternally): Unit\r\n fun fill(path: Path2D,
fillRule: CanvasFillRule = definedExternally): Unit\r\n fun stroke(): Unit\r\n fun stroke(path: Path2D): Unit\r\n
fun clip(fillRule: CanvasFillRule = definedExternally): Unit\r\n fun clip(path: Path2D, fillRule: CanvasFillRule =
definedExternally): Unit\r\n fun resetClip(): Unit\r\n fun isPointInPath(x: Double, y: Double, fillRule:
CanvasFillRule = definedExternally): Boolean\r\n fun isPointInPath(path: Path2D, x: Double, y: Double, fillRule:
CanvasFillRule = definedExternally): Boolean\r\n fun isPointInStroke(x: Double, y: Double): Boolean\r\n fun
isPointInStroke(path: Path2D, x: Double, y: Double): Boolean\r\n}\r\n\r\npublic external interface
CanvasUserInterface {\r\n fun drawFocusIfNeeded(element: Element): Unit\r\n fun drawFocusIfNeeded(path:
Path2D, element: Element): Unit\r\n fun scrollPathIntoView(): Unit\r\n fun scrollPathIntoView(path: Path2D):
Unit\r\n}\r\n\r\npublic external interface CanvasText {\r\n fun fillText(text: String, x: Double, y: Double,
maxWidth: Double = definedExternally): Unit\r\n fun strokeText(text: String, x: Double, y: Double, maxWidth:
Double = definedExternally): Unit\r\n fun measureText(text: String): TextMetrics\r\n}\r\n\r\npublic external
interface CanvasDrawImage {\r\n fun drawImage(image: dynamic, dx: Double, dy: Double): Unit\r\n fun
drawImage(image: dynamic, dx: Double, dy: Double, dw: Double, dh: Double): Unit\r\n fun drawImage(image:
dynamic, sx: Double, sy: Double, sw: Double, sh: Double, dx: Double, dy: Double, dw: Double, dh: Double):
Unit\r\n}\r\n\r\npublic external interface CanvasHitRegion {\r\n fun addHitRegion(options: HitRegionOptions =
definedExternally): Unit\r\n fun removeHitRegion(id: String): Unit\r\n fun clearHitRegions():
Unit\r\n}\r\n\r\npublic external interface CanvasImageData {\r\n fun createImageData(sw: Double, sh: Double):
ImageData\r\n fun createImageData(imagedata: ImageData): ImageData\r\n fun getImageData(sx: Double, sy:
Double, sw: Double, sh: Double): ImageData\r\n fun putImageData(imagedata: ImageData, dx: Double, dy:
Double): Unit\r\n fun putImageData(imagedata: ImageData, dx: Double, dy: Double, dirtyX: Double, dirtyY:
Double, dirtyWidth: Double, dirtyHeight: Double): Unit\r\n}\r\n\r\npublic external interface
CanvasPathDrawingStyles {\r\n var lineWidth: Double\r\n var lineCap: CanvasLineCap\r\n var lineJoin:
CanvasLineJoin\r\n var miterLimit: Double\r\n var lineDashOffset: Double\r\n fun setLineDash(segments:
Array<Double>): Unit\r\n fun getLineDash(): Array<Double>\r\n}\r\n\r\npublic external interface
CanvasTextDrawingStyles {\r\n var font: String\r\n var textAlign: CanvasTextAlign\r\n var textBaseline:
CanvasTextBaseline\r\n var direction: CanvasDirection\r\n}\r\n\r\npublic external interface CanvasPath {\r\n fun
closePath(): Unit\r\n fun moveTo(x: Double, y: Double): Unit\r\n fun lineTo(x: Double, y: Double): Unit\r\n
fun quadraticCurveTo(cpx: Double, cpy: Double, x: Double, y: Double): Unit\r\n fun bezierCurveTo(cp1x:
Double, cp1y: Double, cp2x: Double, cp2y: Double, x: Double, y: Double): Unit\r\n fun arcTo(x1: Double, y1:
Double, x2: Double, y2: Double, radius: Double): Unit\r\n fun arcTo(x1: Double, y1: Double, x2: Double, y2:
Double, radiusX: Double, radiusY: Double, rotation: Double): Unit\r\n fun rect(x: Double, y: Double, w: Double,
h: Double): Unit\r\n fun arc(x: Double, y: Double, radius: Double, startAngle: Double, endAngle: Double,
anticlockwise: Boolean = definedExternally): Unit\r\n fun ellipse(x: Double, y: Double, radiusX: Double, radiusY:
Double, rotation: Double, startAngle: Double, endAngle: Double, anticlockwise: Boolean = definedExternally):

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Unit\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript  
[CanvasGradient](https://developer.mozilla.org/en/docs/Web/API/CanvasGradient) to Kotlin\r\n \*^\r\npublic  
external abstract class CanvasGradient {\r\n fun addColorStop(offset: Double, color: String):  
Unit\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript  
[CanvasPattern](https://developer.mozilla.org/en/docs/Web/API/CanvasPattern) to Kotlin\r\n \*^\r\npublic external  
abstract class CanvasPattern {\r\n fun setTransform(transform: dynamic = definedExternally):  
Unit\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript  
[TextMetrics](https://developer.mozilla.org/en/docs/Web/API/TextMetrics) to Kotlin\r\n \*^\r\npublic external  
abstract class TextMetrics {\r\n open val width: Double\r\n open val actualBoundingBoxLeft: Double\r\n open  
val actualBoundingBoxRight: Double\r\n open val fontBoundingBoxAscent: Double\r\n open val  
fontBoundingBoxDescent: Double\r\n open val actualBoundingBoxAscent: Double\r\n open val  
actualBoundingBoxDescent: Double\r\n open val emHeightAscent: Double\r\n open val emHeightDescent:  
Double\r\n open val hangingBaseline: Double\r\n open val alphabeticBaseline: Double\r\n open val  
ideographicBaseline: Double\r\n}\r\n\r\npublic external interface HitRegionOptions {\r\n var path: Path2D? /\* =  
null \*^\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var fillRule: CanvasFillRule?  
/\* = CanvasFillRule.NONZERO \*^\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n  
var id: String? /\* = \"\" \*^\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var  
parentID: String? /\* = null \*^\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var  
cursor: String? /\* = \"inherit\" \*^\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var  
control: Element? /\* = null \*^\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var  
label: String? /\* = null \*^\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var role:  
String? /\* = null \*^\r\n get() = definedExternally\r\n set(value) =  
definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun HitRegionOptions(path: Path2D? =  
null, fillRule: CanvasFillRule? = CanvasFillRule.NONZERO, id: String? = \"\", parentID: String? = null, cursor:  
String? = \"inherit\", control: Element? = null, label: String? = null, role: String? = null): HitRegionOptions {\r\n  
val o = js(\"({})\")\r\n o[\"path\"] = path\r\n o[\"fillRule\"] = fillRule\r\n o[\"id\"] = id\r\n o[\"parentID\"]  
= parentID\r\n o[\"cursor\"] = cursor\r\n o[\"control\"] = control\r\n o[\"label\"] = label\r\n o[\"role\"] =  
role\r\n\r\n return o\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript  
[ImageData](https://developer.mozilla.org/en/docs/Web/API/ImageData) to Kotlin\r\n \*^\r\npublic external open  
class ImageData : TexImageSource {\r\n constructor(sw: Int, sh: Int)\r\n constructor(data: Uint8ClampedArray,  
sw: Int, sh: Int = definedExternally)\r\n open val width: Int\r\n open val height: Int\r\n open val data:  
Uint8ClampedArray\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript  
[Path2D](https://developer.mozilla.org/en/docs/Web/API/Path2D) to Kotlin\r\n \*^\r\npublic external open class  
Path2D() : CanvasPath {\r\n constructor(path: Path2D)\r\n constructor(paths: Array<Path2D>, fillRule:  
CanvasFillRule = definedExternally)\r\n constructor(d: String)\r\n fun addPath(path: Path2D, transform:  
dynamic = definedExternally): Unit\r\n override fun closePath(): Unit\r\n override fun moveTo(x: Double, y:  
Double): Unit\r\n override fun lineTo(x: Double, y: Double): Unit\r\n override fun quadraticCurveTo(cpx:  
Double, cpy: Double, x: Double, y: Double): Unit\r\n override fun bezierCurveTo(cp1x: Double, cp1y: Double,  
cp2x: Double, cp2y: Double, x: Double, y: Double): Unit\r\n override fun arcTo(x1: Double, y1: Double, x2:  
Double, y2: Double, radius: Double): Unit\r\n override fun arcTo(x1: Double, y1: Double, x2: Double, y2:  
Double, radiusX: Double, radiusY: Double, rotation: Double): Unit\r\n override fun rect(x: Double, y: Double, w:  
Double, h: Double): Unit\r\n override fun arc(x: Double, y: Double, radius: Double, startAngle: Double,  
endAngle: Double, anticlockwise: Boolean /\* = definedExternally \*/): Unit\r\n override fun ellipse(x: Double, y:  
Double, radiusX: Double, radiusY: Double, rotation: Double, startAngle: Double, endAngle: Double, anticlockwise:  
Boolean /\* = definedExternally \*/): Unit\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript  
[Touch](https://developer.mozilla.org/en/docs/Web/API/Touch) to Kotlin\r\n \*^\r\npublic external abstract class  
Touch {\r\n open val region: String?\r\n}\r\n\r\n\*\*\r\n \* Exposes the JavaScript  
[ImageBitmapRenderingContext](https://developer.mozilla.org/en/docs/Web/API/ImageBitmapRenderingContext)



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modifierSymbolLock\r\n o["view"] = view\r\n o["detail"] = detail\r\n o["bubbles"] = bubbles\r\n
o["cancelable"] = cancelable\r\n o["composed"] = composed\r\n\r\n return o\r\n}\r\n\r\npublic external
abstract class BarProp {\r\n open val visible: Boolean\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[History](https://developer.mozilla.org/en/docs/Web/API/History) to Kotlin\r\n */\r\n\r\npublic external abstract class
History {\r\n open val length: Int\r\n open var scrollRestoration: ScrollRestoration\r\n open val state: Any?\r\n
fun go(delta: Int = definedExternally): Unit\r\n fun back(): Unit\r\n fun forward(): Unit\r\n fun pushState(data:
Any?, title: String, url: String? = definedExternally): Unit\r\n fun replaceState(data: Any?, title: String, url: String?
= definedExternally): Unit\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[Location](https://developer.mozilla.org/en/docs/Web/API/Location) to Kotlin\r\n */\r\n\r\npublic external abstract
class Location {\r\n open var href: String\r\n open val origin: String\r\n open var protocol: String\r\n open
var host: String\r\n open var hostname: String\r\n open var port: String\r\n open var pathname: String\r\n
open var search: String\r\n open var hash: String\r\n open val ancestorOrigins: Array<out String>\r\n fun
assign(url: String): Unit\r\n fun replace(url: String): Unit\r\n fun reload(): Unit\r\n}\r\n\r\n/**\r\n * Exposes the
JavaScript [PopStateEvent](https://developer.mozilla.org/en/docs/Web/API/PopStateEvent) to Kotlin\r\n
*/\r\n\r\npublic external open class PopStateEvent(type: String, eventInitDict: PopStateEventInit = definedExternally) :
Event {\r\n open val state: Any?\r\n}\r\n\r\n\r\npublic external interface PopStateEventInit : EventInit {\r\n var state:
Any? /* = null */\r\n get() = definedExternally\r\n set(value) =
definedExternally\r\n}\r\n\r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun PopStateEventInit(state: Any? = null,
bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): PopStateEventInit {\r\n val
o = js("{}")\r\n o["state"] = state\r\n o["bubbles"] = bubbles\r\n o["cancelable"] = cancelable\r\n
o["composed"] = composed\r\n\r\n return o\r\n}\r\n\r\n\r\n/**\r\n * Exposes the JavaScript
[HashChangeEvent](https://developer.mozilla.org/en/docs/Web/API/HashChangeEvent) to Kotlin\r\n */\r\n\r\npublic
external open class HashChangeEvent(type: String, eventInitDict: HashChangeEventInit = definedExternally) :
Event {\r\n open val oldURL: String\r\n open val newURL: String\r\n}\r\n\r\n\r\npublic external interface
HashChangeEventInit : EventInit {\r\n var oldURL: String? /* = "" */\r\n get() = definedExternally\r\n
set(value) = definedExternally\r\n var newURL: String? /* = "" */\r\n get() = definedExternally\r\n
set(value) = definedExternally\r\n}\r\n\r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun
HashChangeEventInit(oldURL: String? = "", newURL: String? = "", bubbles: Boolean? = false, cancelable:
Boolean? = false, composed: Boolean? = false): HashChangeEventInit {\r\n val o = js("{}")\r\n
o["oldURL"] = oldURL\r\n o["newURL"] = newURL\r\n o["bubbles"] = bubbles\r\n o["cancelable"] =
cancelable\r\n o["composed"] = composed\r\n\r\n return o\r\n}\r\n\r\n\r\n/**\r\n * Exposes the JavaScript
[PageTransitionEvent](https://developer.mozilla.org/en/docs/Web/API/PageTransitionEvent) to Kotlin\r\n
*/\r\n\r\npublic external open class PageTransitionEvent(type: String, eventInitDict: PageTransitionEventInit =
definedExternally) : Event {\r\n open val persisted: Boolean\r\n}\r\n\r\n\r\npublic external interface
PageTransitionEventInit : EventInit {\r\n var persisted: Boolean? /* = false */\r\n get() = definedExternally\r\n
set(value) = definedExternally\r\n}\r\n\r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun
PageTransitionEventInit(persisted: Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false,
composed: Boolean? = false): PageTransitionEventInit {\r\n val o = js("{}")\r\n o["persisted"] =
persisted\r\n o["bubbles"] = bubbles\r\n o["cancelable"] = cancelable\r\n o["composed"] =
composed\r\n\r\n return o\r\n}\r\n\r\n\r\n/**\r\n * Exposes the JavaScript
[BeforeUnloadEvent](https://developer.mozilla.org/en/docs/Web/API/BeforeUnloadEvent) to Kotlin\r\n */\r\n\r\npublic
external open class BeforeUnloadEvent : Event {\r\n var returnValue: String\r\n}\r\n\r\n\r\npublic external abstract
class ApplicationCache : EventTarget {\r\n open val status: Short\r\n open var onchecking: ((Event) ->
dynamic)?\r\n open var onerror: ((Event) -> dynamic)?\r\n open var onnoupdate: ((Event) -> dynamic)?\r\n
open var ondownloading: ((Event) -> dynamic)?\r\n open var onprogress: ((ProgressEvent) -> dynamic)?\r\n
open var onupdateready: ((Event) -> dynamic)?\r\n open var oncached: ((Event) -> dynamic)?\r\n open var
onobsolete: ((Event) -> dynamic)?\r\n fun update(): Unit\r\n fun abort(): Unit\r\n fun swapCache(): Unit\r\n}\r\n
companion object {\r\n val UNCACHED: Short\r\n val IDLE: Short\r\n val CHECKING: Short\r\n

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val DOWNLOADING: Short\r\n    val UPDATEREADY: Short\r\n    val OBSOLETE: Short\r\n
}\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[NavigatorOnLine](https://developer.mozilla.org/en/docs/Web/API/NavigatorOnLine) to Kotlin\r\n *^\r\npublic
external interface NavigatorOnLine {\r\n    val onLine: Boolean\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[ErrorEvent](https://developer.mozilla.org/en/docs/Web/API/ErrorEvent) to Kotlin\r\n *^\r\npublic external open
class ErrorEvent(type: String, eventInitDict: ErrorEventInit = definedExternally) : Event {\r\n    open val message:
String\r\n    open val filename: String\r\n    open val lineno: Int\r\n    open val colno: Int\r\n    open val error:
Any?\r\n}\r\n\r\npublic external interface ErrorEventInit : EventInit {\r\n    var message: String? /* = "" */\r\n
get() = definedExternally\r\n    set(value) = definedExternally\r\n    var filename: String? /* = "" */\r\n    get()
= definedExternally\r\n    set(value) = definedExternally\r\n    var lineno: Int? /* = 0 */\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n    var colno: Int? /* = 0 */\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n    var error: Any? /* = null */\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
ErrorEventInit(message: String? = "", filename: String? = "", lineno: Int? = 0, colno: Int? = 0, error: Any? = null,
bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ErrorEventInit {\r\n    val o =
js("{}")\r\n    o["message"] = message\r\n    o["filename"] = filename\r\n    o["lineno"] = lineno\r\n    o["colno"] =
colno\r\n    o["error"] = error\r\n    o["bubbles"] = bubbles\r\n    o["cancelable"] = cancelable\r\n    o["composed"] =
composed\r\n\r\n    return o\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[PromiseRejectionEvent](https://developer.mozilla.org/en/docs/Web/API/PromiseRejectionEvent) to Kotlin\r\n *^\r\npublic
external open class PromiseRejectionEvent(type: String, eventInitDict: PromiseRejectionEventInit) :
Event {\r\n    open val promise: Promise<Any?>\r\n    open val reason: Any?\r\n}\r\n\r\npublic external interface
PromiseRejectionEventInit : EventInit {\r\n    var promise: Promise<Any?>?\r\n    get() = definedExternally\r\n
set(value) = definedExternally\r\n    var reason: Any?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun PromiseRejectionEventInit(promise:
Promise<Any?>?, reason: Any? = undefined, bubbles: Boolean? = false, cancelable: Boolean? = false, composed:
Boolean? = false): PromiseRejectionEventInit {\r\n    val o = js("{}")\r\n    o["promise"] = promise\r\n    o["reason"] =
reason\r\n    o["bubbles"] = bubbles\r\n    o["cancelable"] = cancelable\r\n    o["composed"] =
composed\r\n\r\n    return o\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[GlobalEventHandlers](https://developer.mozilla.org/en/docs/Web/API/GlobalEventHandlers) to Kotlin\r\n *^\r\npublic
external interface GlobalEventHandlers {\r\n    var ongotpointercapture: ((PointerEvent) ->
dynamic)?\r\n    var onlostpointercapture: ((PointerEvent) -> dynamic)?\r\n    var onpointerdown: ((PointerEvent) ->
dynamic)?\r\n    var onpointermove: ((PointerEvent) -> dynamic)?\r\n    var onpointerup: ((PointerEvent) ->
dynamic)?\r\n    var onpointercancel: ((PointerEvent) -> dynamic)?\r\n    var onpointerover: ((PointerEvent) ->
dynamic)?\r\n    var onpointerout: ((PointerEvent) -> dynamic)?\r\n    var onpointerenter: ((PointerEvent) ->
dynamic)?\r\n    var onpointerleave: ((PointerEvent) -> dynamic)?\r\n    var onabort: ((Event) -> dynamic)?\r\n    var
onblur: ((FocusEvent) -> dynamic)?\r\n    var oncancel: ((Event) -> dynamic)?\r\n    var oncanplay: ((Event) ->
dynamic)?\r\n    var oncanplaythrough: ((Event) -> dynamic)?\r\n    var onchange: ((Event) -> dynamic)?\r\n    var
onclick: ((MouseEvent) -> dynamic)?\r\n    var onclose: ((Event) -> dynamic)?\r\n    var oncontextmenu:
((MouseEvent) -> dynamic)?\r\n    var oncuechange: ((Event) -> dynamic)?\r\n    var ondblclick: ((MouseEvent) ->
dynamic)?\r\n    var ondrag: ((DragEvent) -> dynamic)?\r\n    var ondragend: ((DragEvent) -> dynamic)?\r\n    var
ondragenter: ((DragEvent) -> dynamic)?\r\n    var ondragexit: ((DragEvent) -> dynamic)?\r\n    var ondragleave:
((DragEvent) -> dynamic)?\r\n    var ondragover: ((DragEvent) -> dynamic)?\r\n    var ondragstart: ((DragEvent) ->
dynamic)?\r\n    var ondrop: ((DragEvent) -> dynamic)?\r\n    var ondurationchange: ((Event) -> dynamic)?\r\n    var
onemptied: ((Event) -> dynamic)?\r\n    var onended: ((Event) -> dynamic)?\r\n    var onerror: ((dynamic, String, Int,
Int, Any?) -> dynamic)?\r\n    var onfocus: ((FocusEvent) -> dynamic)?\r\n    var oninput: ((InputEvent) ->
dynamic)?\r\n    var oninvalid: ((Event) -> dynamic)?\r\n    var onkeydown: ((KeyboardEvent) -> dynamic)?\r\n
var onkeypress: ((KeyboardEvent) -> dynamic)?\r\n    var onkeyup: ((KeyboardEvent) -> dynamic)?\r\n    var
onload: ((Event) -> dynamic)?\r\n    var onloadeddata: ((Event) -> dynamic)?\r\n    var onloadedmetadata: ((Event) -

```

```

> dynamic)?\r\n var onloadend: ((Event) -> dynamic)?\r\n var onloadstart: ((ProgressEvent) -> dynamic)?\r\n
var onmousedown: ((MouseEvent) -> dynamic)?\r\n var onmouseenter: ((MouseEvent) -> dynamic)?\r\n var
onmouseleave: ((MouseEvent) -> dynamic)?\r\n var onmousemove: ((MouseEvent) -> dynamic)?\r\n var
onmouseout: ((MouseEvent) -> dynamic)?\r\n var onmouseover: ((MouseEvent) -> dynamic)?\r\n var
onmouseup: ((MouseEvent) -> dynamic)?\r\n var onwheel: ((WheelEvent) -> dynamic)?\r\n var onpause:
((Event) -> dynamic)?\r\n var onplay: ((Event) -> dynamic)?\r\n var onplaying: ((Event) -> dynamic)?\r\n var
onprogress: ((ProgressEvent) -> dynamic)?\r\n var onratechange: ((Event) -> dynamic)?\r\n var onreset: ((Event)
-> dynamic)?\r\n var onresize: ((Event) -> dynamic)?\r\n var onscroll: ((Event) -> dynamic)?\r\n var onseeked:
((Event) -> dynamic)?\r\n var onseeking: ((Event) -> dynamic)?\r\n var onselect: ((Event) -> dynamic)?\r\n var
onshow: ((Event) -> dynamic)?\r\n var onstalled: ((Event) -> dynamic)?\r\n var onsubmit: ((Event) ->
dynamic)?\r\n var onsuspend: ((Event) -> dynamic)?\r\n var ontimeupdate: ((Event) -> dynamic)?\r\n var
ontoggle: ((Event) -> dynamic)?\r\n var onvolumechange: ((Event) -> dynamic)?\r\n var onwaiting: ((Event) ->
dynamic)?\r\n}\r\n\r\n**\r\n * Exposes the JavaScript
[WindowEventHandlers](https://developer.mozilla.org/en/docs/Web/API/WindowEventHandlers) to Kotlin\r\n
*\r\n\r\npublic external interface WindowEventHandlers {\r\n var onafterprint: ((Event) -> dynamic)?\r\n var
onbeforeprint: ((Event) -> dynamic)?\r\n var onbeforeunload: ((BeforeUnloadEvent) -> String)?\r\n var
onhashchange: ((HashChangeEvent) -> dynamic)?\r\n var onlanguagechange: ((Event) -> dynamic)?\r\n var
onmessage: ((MessageEvent) -> dynamic)?\r\n var onoffline: ((Event) -> dynamic)?\r\n var online: ((Event) -
> dynamic)?\r\n var onpagehide: ((PageTransitionEvent) -> dynamic)?\r\n var onpageshow:
((PageTransitionEvent) -> dynamic)?\r\n var onpopstate: ((PopStateEvent) -> dynamic)?\r\n var
onrejectionhandled: ((Event) -> dynamic)?\r\n var onstorage: ((StorageEvent) -> dynamic)?\r\n var
onunhandledrejection: ((PromiseRejectionEvent) -> dynamic)?\r\n var onunload: ((Event) ->
dynamic)?\r\n}\r\n\r\npublic external interface DocumentAndElementEventHandlers {\r\n var oncopy:
((ClipboardEvent) -> dynamic)?\r\n var oncut: ((ClipboardEvent) -> dynamic)?\r\n var onpaste:
((ClipboardEvent) -> dynamic)?\r\n}\r\n\r\n**\r\n * Exposes the JavaScript
[WindowOrWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/WindowOrWorkerGlobalScope)
to Kotlin\r\n
*\r\n\r\npublic external interface WindowOrWorkerGlobalScope {\r\n val caches: CacheStorage\r\n
val origin: String\r\n fun fetch(input: dynamic, init: RequestInit = definedExternally): Promise<Response>\r\n
fun btoa(data: String): String\r\n fun atob(data: String): String\r\n fun setTimeout(handler: dynamic, timeout: Int
= definedExternally, vararg arguments: Any?): Int\r\n fun clearTimeout(handle: Int = definedExternally): Unit\r\n
fun setInterval(handler: dynamic, timeout: Int = definedExternally, vararg arguments: Any?): Int\r\n fun
clearInterval(handle: Int = definedExternally): Unit\r\n fun createImageBitmap(image: dynamic, options:
ImageBitmapOptions = definedExternally): Promise<ImageBitmap>\r\n fun createImageBitmap(image: dynamic,
sx: Int, sy: Int, sw: Int, sh: Int, options: ImageBitmapOptions = definedExternally):
Promise<ImageBitmap>\r\n}\r\n\r\n**\r\n * Exposes the JavaScript
[NavigatorID](https://developer.mozilla.org/en/docs/Web/API/NavigatorID) to Kotlin\r\n
*\r\n\r\npublic external
interface NavigatorID {\r\n val appCodeName: String\r\n val appName: String\r\n val appVersion: String\r\n
val platform: String\r\n val product: String\r\n val productSub: String\r\n val userAgent: String\r\n val
vendor: String\r\n val vendorSub: String\r\n val oscpu: String\r\n fun taintEnabled():
Boolean\r\n}\r\n\r\n**\r\n * Exposes the JavaScript
[NavigatorLanguage](https://developer.mozilla.org/en/docs/Web/API/NavigatorLanguage) to Kotlin\r\n
*\r\n\r\npublic
external interface NavigatorLanguage {\r\n val language: String\r\n val languages: Array<out
String>\r\n}\r\n\r\npublic external interface NavigatorContentUtils {\r\n fun registerProtocolHandler(scheme:
String, url: String, title: String): Unit\r\n fun registerContentHandler(mimeType: String, url: String, title: String):
Unit\r\n fun isProtocolHandlerRegistered(scheme: String, url: String): String\r\n fun
isContentHandlerRegistered(mimeType: String, url: String): String\r\n fun unregisterProtocolHandler(scheme:
String, url: String): Unit\r\n fun unregisterContentHandler(mimeType: String, url: String): Unit\r\n}\r\n\r\npublic
external interface NavigatorCookies {\r\n val cookieEnabled: Boolean\r\n}\r\n\r\n**\r\n * Exposes the JavaScript

```



```

interface MessageEventInit : EventInit {
    var data: Any? /* = null */
    get() = definedExternally
    set(value) = definedExternally
    var origin: String? /* = "" */
    get() = definedExternally
    set(value) = definedExternally
    var lastEventId: String? /* = "" */
    get() = definedExternally
    set(value) = definedExternally
    var source: UnionMessagePortOrWindow? /* = null */
    get() = definedExternally
    set(value) = definedExternally
    var ports: Array<MessagePort>? /* = arrayOf() */
    get() = definedExternally
    set(value) = definedExternally
}
@kotlin.internal.InlineOnly
public inline fun MessageEventInit(data: Any? = null, origin: String? = "", lastEventId: String? = "", source: UnionMessagePortOrWindow? = null, ports: Array<MessagePort>? = arrayOf(), bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): MessageEventInit {
    val o = js("{}")
    o["data"] = data
    o["origin"] = origin
    o["lastEventId"] = lastEventId
    o["source"] = source
    o["ports"] = ports
    o["bubbles"] = bubbles
    o["cancelable"] = cancelable
    o["composed"] = composed
    return o
}
/**
 * Exposes the JavaScript
 [EventSource](https://developer.mozilla.org/en/docs/Web/API/EventSource) to Kotlin
 */
public external open class EventSource(url: String, eventSourceInitDict: EventSourceInit = definedExternally) : EventTarget {
    open val url: String
    open val withCredentials: Boolean
    open val readyState: Short
    var onopen: ((Event) -> dynamic)?
    var onmessage: ((MessageEvent) -> dynamic)?
    var onerror: ((Event) -> dynamic)?
    fun close(): Unit
    companion object {
        val CONNECTING: Short
        val OPEN: Short
        val CLOSED: Short
    }
}
public external interface EventSourceInit {
    var withCredentials: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
}
@kotlin.internal.InlineOnly
public inline fun EventSourceInit(withCredentials: Boolean? = false): EventSourceInit {
    val o = js("{}")
    o["withCredentials"] = withCredentials
    return o
}
/**
 * Exposes the JavaScript
 [WebSocket](https://developer.mozilla.org/en/docs/Web/API/WebSocket) to Kotlin
 */
public external open class WebSocket(url: String, protocols: dynamic = definedExternally) : EventTarget {
    open val url: String
    open val readyState: Short
    open val bufferedAmount: Int
    var onopen: ((Event) -> dynamic)?
    var onerror: ((Event) -> dynamic)?
    var onclose: ((Event) -> dynamic)?
    open val extensions: String
    open val protocol: String
    var onmessage: ((MessageEvent) -> dynamic)?
    var binaryType: BinaryType
    fun close(code: Short = definedExternally, reason: String = definedExternally): Unit
    fun send(data: String): Unit
    fun send(data: Blob): Unit
    fun send(data: ArrayBuffer): Unit
    fun send(data: ArrayBufferView): Unit
    companion object {
        val CONNECTING: Short
        val OPEN: Short
        val CLOSING: Short
        val CLOSED: Short
    }
}
/**
 * Exposes the JavaScript
 [CloseEvent](https://developer.mozilla.org/en/docs/Web/API/CloseEvent) to Kotlin
 */
public external open class CloseEvent(type: String, eventInitDict: CloseEventInit = definedExternally) : Event {
    open val wasClean: Boolean
    open val code: Short
    open val reason: String
}
public external interface CloseEventInit : EventInit {
    var wasClean: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var code: Short? /* = 0 */
    get() = definedExternally
    set(value) = definedExternally
    var reason: String? /* = "" */
    get() = definedExternally
    set(value) = definedExternally
}
@kotlin.internal.InlineOnly
public inline fun CloseEventInit(wasClean: Boolean? = false, code: Short? = 0, reason: String? = "", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): CloseEventInit {
    val o = js("{}")
    o["wasClean"] = wasClean
    o["code"] = code
    o["reason"] = reason
    o["bubbles"] = bubbles
    o["cancelable"] = cancelable
    o["composed"] = composed
    return o
}
/**
 * Exposes the JavaScript
 [MessageChannel](https://developer.mozilla.org/en/docs/Web/API/MessageChannel) to Kotlin
 */
public external open class MessageChannel {
    open val port1: MessagePort
    open val port2: MessagePort
}
/**
 * Exposes the JavaScript
 [MessagePort](https://developer.mozilla.org/en/docs/Web/API/MessagePort) to Kotlin
 */
public external abstract class MessagePort : EventTarget, UnionMessagePortOrWindow, UnionMessagePortOrServiceWorker, UnionClientOrMessagePortOrServiceWorker {
    open val onmessage: ((MessageEvent) -> dynamic)?
    fun

```



Exposes the JavaScript [Storage](https://developer.mozilla.org/en/docs/Web/API/Storage) to Kotlin

```

public external abstract class Storage {
    open val length: Int
    fun key(index: Int): String?
    fun getItem(key: String): String?
    fun setItem(key: String, value: String): Unit
    fun removeItem(key: String): Unit
    fun clear(): Unit
}

```

@kotlin.internal.InlineOnly inline operator fun Storage.get(key: String): String? = asDynamic()[key]

@kotlin.internal.InlineOnly inline operator fun Storage.set(key: String, value: String): Unit { asDynamic()[key] = value; }

\* Exposes the JavaScript [WindowSessionStorage](https://developer.mozilla.org/en/docs/Web/API/WindowSessionStorage) to Kotlin

```

public external interface WindowSessionStorage {
    val sessionStorage: Storage
}

```

\* Exposes the JavaScript [WindowLocalStorage](https://developer.mozilla.org/en/docs/Web/API/WindowLocalStorage) to Kotlin

```

public external interface WindowLocalStorage {
    val localStorage: Storage
}

```

\* Exposes the JavaScript [StorageEvent](https://developer.mozilla.org/en/docs/Web/API/StorageEvent) to Kotlin

```

public external open class StorageEvent(type: String, eventInitDict: StorageEventInit = definedExternally) : Event {
    open val key: String?
    open val oldValue: String?
    open val newValue: String?
    open val url: String
    open val storageArea: Storage?
}

```

```

public external interface StorageEventInit : EventInit {
    var key: String? /* = null */
    fun get(): definedExternally
    fun set(value): definedExternally
    var oldValue: String? /* = null */
    fun get(): definedExternally
    fun set(value): definedExternally
    var newValue: String? /* = null */
    fun get(): definedExternally
    fun set(value): definedExternally
    var url: String? /* = "" */
    fun get(): definedExternally
    fun set(value): definedExternally
    var storageArea: Storage? /* = null */
    fun get(): definedExternally
    fun set(value): definedExternally
}

```

@kotlin.internal.InlineOnly public inline fun StorageEventInit(key: String? = null, oldValue: String? = null, newValue: String? = null, url: String? = "", storageArea: Storage? = null, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): StorageEventInit {

```

    val o = js("{}")
    o["key"] = key
    o["oldValue"] = oldValue
    o["newValue"] = newValue
    o["url"] = url
    o["storageArea"] = storageArea
    o["bubbles"] = bubbles
    o["cancelable"] = cancelable
    o["composed"] = composed
    return o
}

```

\* Exposes the JavaScript HTMLAppletElement : HTMLElement {

```

    open var align: String
    open var alt: String
    open var archive: String
    open var code: String
    open var codeBase: String
    open var height: String
    open var hspace: Int
    open var name: String
    open var _object: String
    open var vspace: Int
    open var width: String
}

```

\* Exposes the JavaScript [HTMLMarqueeElement](https://developer.mozilla.org/en/docs/Web/API/HTMLMarqueeElement) to Kotlin

```

public external abstract class HTMLMarqueeElement : HTMLElement {
    open var behavior: String
    open var bgColor: String
    open var direction: String
    open var height: String
    open var hspace: Int
    open var loop: Int
    open var scrollAmount: Int
    open var scrollDelay: Int
    open var trueSpeed: Boolean
    open var vspace: Int
    open var width: String
    open var onbounce: ((Event) -> dynamic)?
    open var onfinish: ((Event) -> dynamic)?
    open var onstart: ((Event) -> dynamic)?
    fun start(): Unit
    fun stop(): Unit
}

```

\* Exposes the JavaScript [HTMLFrameSetElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFrameSetElement) to Kotlin

```

public external abstract class HTMLFrameSetElement : HTMLElement, WindowEventHandlers {
    open var cols: String
    open var rows: String
}

```

```

public external abstract class HTMLFrameElement : HTMLElement {
    open var name: String
    open var scrolling: String
    open var src: String
    open var frameBorder: String
    open var longDesc: String
    open var noResize: Boolean
    open val contentDocument: Document?
    open val contentWindow: Window?
    open var marginHeight: String
    open var marginWidth: String
}

```

\* Exposes the JavaScript [HTMLFontElement](https://developer.mozilla.org/en/docs/Web/API/HTMLFontElement) to Kotlin

```

public external abstract class HTMLFontElement : HTMLElement {
    open var color: String
    open var face: String
    open var size: String
}

```

\* Exposes the JavaScript External {

```

    fun AddSearchProvider():

```



```

override val length: Int\r\n  override fun item(index: Int): Element?\r\n  fun namedItem(name: String):
Element?\r\n}\r\n@kotlin.internal.InlineOnly inline operator fun HTMLCollection.get(index: Int): Element? =
asDynamic()[index]\r\n@kotlin.internal.InlineOnly inline operator fun HTMLCollection.get(name: String):
Element? = asDynamic()[name]\r\n\r\n/**\r\n * Exposes the JavaScript
[MutationObserver](https://developer.mozilla.org/en/docs/Web/API/MutationObserver) to Kotlin\r\n */\r\npublic
external open class MutationObserver(callback: (Array<MutationRecord>, MutationObserver) -> Unit) {\r\n  fun
observe(target: Node, options: MutationObserverInit = definedExternally): Unit\r\n  fun disconnect(): Unit\r\n
fun takeRecords(): Array<MutationRecord>\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[MutationObserverInit](https://developer.mozilla.org/en/docs/Web/API/MutationObserverInit) to Kotlin\r\n
*/\r\npublic external interface MutationObserverInit {\r\n  var childList: Boolean? /* = false */\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n  var attributes: Boolean?\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n  var characterData: Boolean?\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n  var subtree: Boolean? /* = false */\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n  var attributeOldValue: Boolean?\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n  var characterDataOldValue: Boolean?\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n  var attributeFilter: Array<String>?\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
MutationObserverInit(childList: Boolean? = false, attributes: Boolean? = undefined, characterData: Boolean? =
undefined, subtree: Boolean? = false, attributeOldValue: Boolean? = undefined, characterDataOldValue: Boolean? =
undefined, attributeFilter: Array<String>? = undefined): MutationObserverInit {\r\n  val o = js("{}")\r\n\r\n
o["childList"] = childList\r\n  o["attributes"] = attributes\r\n  o["characterData"] = characterData\r\n
o["subtree"] = subtree\r\n  o["attributeOldValue"] = attributeOldValue\r\n  o["characterDataOldValue"] =
characterDataOldValue\r\n  o["attributeFilter"] = attributeFilter\r\n\r\n  return o\r\n}\r\n\r\n/**\r\n * Exposes the
JavaScript [MutationRecord](https://developer.mozilla.org/en/docs/Web/API/MutationRecord) to Kotlin\r\n
*/\r\npublic external abstract class MutationRecord {\r\n  open val type: String\r\n  open val target: Node\r\n
open val addedNodes: NodeList\r\n  open val removedNodes: NodeList\r\n  open val previousSibling: Node?\r\n
open val nextSibling: Node?\r\n  open val attributeName: String?\r\n  open val attributeNamespace: String?\r\n
open val oldValue: String?\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[Node](https://developer.mozilla.org/en/docs/Web/API/Node) to Kotlin\r\n */\r\npublic external abstract class Node
: EventTarget {\r\n  open val nodeType: Short\r\n  open val nodeName: String\r\n  open val baseURI: String\r\n
open val isConnected: Boolean\r\n  open val ownerDocument: Document?\r\n  open val parentNode: Node?\r\n
open val parentElement: Element?\r\n  open val childNodes: NodeList\r\n  open val firstChild: Node?\r\n  open
val lastChild: Node?\r\n  open val previousSibling: Node?\r\n  open val nextSibling: Node?\r\n  open var
nodeValue: String?\r\n  open var textContent: String?\r\n  fun getRootNode(options: GetRootNodeOptions =
definedExternally): Node\r\n  fun hasChildNodes(): Boolean\r\n  fun normalize(): Unit\r\n  fun cloneNode(deep:
Boolean = definedExternally): Node\r\n  fun isEqualNode(otherNode: Node?): Boolean\r\n  fun
isSameNode(otherNode: Node?): Boolean\r\n  fun compareDocumentPosition(other: Node): Short\r\n  fun
contains(other: Node?): Boolean\r\n  fun lookupPrefix(namespace: String?): String?\r\n  fun
lookupNamespaceURI(prefix: String?): String?\r\n  fun isDefaultNamespace(namespace: String?): Boolean\r\n
fun insertBefore(node: Node, child: Node?): Node\r\n  fun appendChild(node: Node): Node\r\n  fun
replaceChild(node: Node, child: Node): Node\r\n  fun removeChild(child: Node): Node\r\n\r\n  companion object
{\r\n    val ELEMENT_NODE: Short\r\n    val ATTRIBUTE_NODE: Short\r\n    val TEXT_NODE:
Short\r\n    val CDATA_SECTION_NODE: Short\r\n    val ENTITY_REFERENCE_NODE: Short\r\n    val
ENTITY_NODE: Short\r\n    val PROCESSING_INSTRUCTION_NODE: Short\r\n    val
COMMENT_NODE: Short\r\n    val DOCUMENT_NODE: Short\r\n    val DOCUMENT_TYPE_NODE:
Short\r\n    val DOCUMENT_FRAGMENT_NODE: Short\r\n    val NOTATION_NODE: Short\r\n    val
DOCUMENT_POSITION_DISCONNECTED: Short\r\n    val DOCUMENT_POSITION_PRECEDING:
Short\r\n    val DOCUMENT_POSITION_FOLLOWING: Short\r\n    val

```



```

scrollTop: Double\r\n open var scrollLeft: Double\r\n open val scrollWidth: Int\r\n open val scrollHeight:
Int\r\n open val clientTop: Int\r\n open val clientLeft: Int\r\n open val clientWidth: Int\r\n open val
clientHeight: Int\r\n fun requestFullscreen(): Promise<Unit>\r\n fun setPointerCapture(pointerId: Int): Unit\r\n
fun releasePointerCapture(pointerId: Int): Unit\r\n fun hasPointerCapture(pointerId: Int): Boolean\r\n fun
insertAdjacentHTML(position: String, text: String): Unit\r\n fun hasAttributes(): Boolean\r\n fun
getAttributeNames(): Array<String>\r\n fun getAttribute(qualifiedName: String): String?\r\n fun
getAttributeNS(namespace: String?, localName: String): String?\r\n fun setAttribute(qualifiedName: String, value:
String): Unit\r\n fun setAttributeNS(namespace: String?, qualifiedName: String, value: String): Unit\r\n fun
removeAttribute(qualifiedName: String): Unit\r\n fun removeAttributeNS(namespace: String?, localName:
String): Unit\r\n fun hasAttribute(qualifiedName: String): Boolean\r\n fun hasAttributeNS(namespace: String?,
localName: String): Boolean\r\n fun getAttributeNode(qualifiedName: String): Attr?\r\n fun
getAttributeNodeNS(namespace: String?, localName: String): Attr?\r\n fun setAttributeNode(attr: Attr): Attr?\r\n
fun setAttributeNodeNS(attr: Attr): Attr?\r\n fun removeAttributeNode(attr: Attr): Attr\r\n fun
attachShadow(init: ShadowRootInit): ShadowRoot\r\n fun closest(selectors: String): Element?\r\n fun
matches(selectors: String): Boolean\r\n fun webkitMatchesSelector(selectors: String): Boolean\r\n fun
getElementsByTagName(qualifiedName: String): HTMLCollection\r\n fun
getElementsByTagNameNS(namespace: String?, localName: String): HTMLCollection\r\n fun
getElementsByClassName(classNames: String): HTMLCollection\r\n fun insertAdjacentElement(where: String,
element: Element): Element?\r\n fun insertAdjacentText(where: String, data: String): Unit\r\n fun
getClientRects(): Array<DOMRect>\r\n fun getBoundingClientRect(): DOMRect\r\n fun scrollIntoView():
Unit\r\n fun scrollIntoView(arg: dynamic): Unit\r\n fun scroll(options: ScrollToOptions = definedExternally):
Unit\r\n fun scroll(x: Double, y: Double): Unit\r\n fun scrollTo(options: ScrollToOptions = definedExternally):
Unit\r\n fun scrollTo(x: Double, y: Double): Unit\r\n fun scrollBy(options: ScrollToOptions =
definedExternally): Unit\r\n fun scrollBy(x: Double, y: Double): Unit\r\n}\r\n\r\npublic external interface
ShadowRootInit {\r\n var mode: ShadowRootMode?\r\n get() = definedExternally\r\n set(value) =
definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun ShadowRootInit(mode:
ShadowRootMode?): ShadowRootInit {\r\n val o = js("{}")\r\n o["mode"] = mode\r\n return
o\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[NamedNodeMap](https://developer.mozilla.org/en/docs/Web/API/NamedNodeMap) to Kotlin\r\n */\r\npublic
external abstract class NamedNodeMap : ItemArrayLike<Attr> {\r\n override val length: Int\r\n override fun
item(index: Int): Attr?\r\n fun getNamedItem(qualifiedName: String): Attr?\r\n fun
getNamedItemNS(namespace: String?, localName: String): Attr?\r\n fun setNamedItem(attr: Attr): Attr?\r\n fun
setNamedItemNS(attr: Attr): Attr?\r\n fun removeNamedItem(qualifiedName: String): Attr\r\n fun
removeNamedItemNS(namespace: String?, localName: String): Attr\r\n}\r\n\r\n@kotlin.internal.InlineOnly inline
operator fun NamedNodeMap.get(index: Int): Attr? = asDynamic()[index]\r\n\r\n@kotlin.internal.InlineOnly inline
operator fun NamedNodeMap.get(qualifiedName: String): Attr? = asDynamic()[qualifiedName]\r\n\r\n/**\r\n *
Exposes the JavaScript [Attr](https://developer.mozilla.org/en/docs/Web/API/Attr) to Kotlin\r\n */\r\npublic
external abstract class Attr : Node {\r\n open val namespaceURI: String?\r\n open val prefix: String?\r\n open
val localName: String\r\n open val name: String\r\n open var value: String\r\n open val ownerElement:
Element?\r\n open val specified: Boolean\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[CharacterData](https://developer.mozilla.org/en/docs/Web/API/CharacterData) to Kotlin\r\n */\r\npublic external
abstract class CharacterData : Node, NonDocumentTypeChildNode, ChildNode {\r\n open var data: String\r\n
open val length: Int\r\n fun substringData(offset: Int, count: Int): String\r\n fun appendData(data: String):
Unit\r\n fun insertData(offset: Int, data: String): Unit\r\n fun deleteData(offset: Int, count: Int): Unit\r\n fun
replaceData(offset: Int, count: Int, data: String): Unit\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[Text](https://developer.mozilla.org/en/docs/Web/API/Text) to Kotlin\r\n */\r\npublic external open class Text(data:
String = definedExternally) : CharacterData, Slotable, GeometryUtils {\r\n open val wholeText: String\r\n
override val previousElementSibling: Element?\r\n override val nextElementSibling: Element?\r\n override val

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height\r\n\r\n    return o\r\n}\r\n\r\npublic external interface DOMRectList : ItemArrayLike<DOMRect> {\r\n
override fun item(index: Int): DOMRect?\r\n}\r\n@kotlin.internal.InlineOnly inline operator fun
DOMRectList.get(index: Int): DOMRect? = asDynamic()[index]\r\n\r\n/**\r\n * Exposes the JavaScript
[DOMQuad](https://developer.mozilla.org/en/docs/Web/API/DOMQuad) to Kotlin\r\n */\r\npublic external open
class DOMQuad {\r\n    constructor(p1: DOMPointInit = definedExternally, p2: DOMPointInit = definedExternally,
p3: DOMPointInit = definedExternally, p4: DOMPointInit = definedExternally)\r\n    constructor(rect:
DOMRectInit)\r\n    open val p1: DOMPoint\r\n    open val p2: DOMPoint\r\n    open val p3: DOMPoint\r\n    open
val p4: DOMPoint\r\n    open val bounds: DOMRectReadOnly\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[DOMMatrixReadOnly](https://developer.mozilla.org/en/docs/Web/API/DOMMatrixReadOnly) to Kotlin\r\n
*/\r\npublic external open class DOMMatrixReadOnly(numberSequence: Array<Double>) {\r\n    open val a:
Double\r\n    open val b: Double\r\n    open val c: Double\r\n    open val d: Double\r\n    open val e: Double\r\n
open val f: Double\r\n    open val m11: Double\r\n    open val m12: Double\r\n    open val m13: Double\r\n    open
val m14: Double\r\n    open val m21: Double\r\n    open val m22: Double\r\n    open val m23: Double\r\n    open val
m24: Double\r\n    open val m31: Double\r\n    open val m32: Double\r\n    open val m33: Double\r\n    open val
m34: Double\r\n    open val m41: Double\r\n    open val m42: Double\r\n    open val m43: Double\r\n    open val
m44: Double\r\n    open val is2D: Boolean\r\n    open val isIdentity: Boolean\r\n    fun translate(tx: Double, ty:
Double, tz: Double = definedExternally): DOMMatrix\r\n    fun scale(scale: Double, originX: Double =
definedExternally, originY: Double = definedExternally): DOMMatrix\r\n    fun scale3d(scale: Double, originX:
Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally):
DOMMatrix\r\n    fun scaleNonUniform(scaleX: Double, scaleY: Double = definedExternally, scaleZ: Double =
definedExternally, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double =
definedExternally): DOMMatrix\r\n    fun rotate(angle: Double, originX: Double = definedExternally, originY:
Double = definedExternally): DOMMatrix\r\n    fun rotateFromVector(x: Double, y: Double): DOMMatrix\r\n    fun
rotateAxisAngle(x: Double, y: Double, z: Double, angle: Double): DOMMatrix\r\n    fun skewX(sx: Double):
DOMMatrix\r\n    fun skewY(sy: Double): DOMMatrix\r\n    fun multiply(other: DOMMatrix): DOMMatrix\r\n    fun
flipX(): DOMMatrix\r\n    fun flipY(): DOMMatrix\r\n    fun inverse(): DOMMatrix\r\n    fun
transformPoint(point: DOMPointInit = definedExternally): DOMPoint\r\n    fun toFloat32Array(): Float32Array\r\n
    fun toFloat64Array(): Float64Array\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[DOMMatrix](https://developer.mozilla.org/en/docs/Web/API/DOMMatrix) to Kotlin\r\n */\r\npublic external open
class DOMMatrix() : DOMMatrixReadOnly {\r\n    constructor(transformList: String)\r\n    constructor(other:
DOMMatrixReadOnly)\r\n    constructor(array32: Float32Array)\r\n    constructor(array64: Float64Array)\r\n
    constructor(numberSequence: Array<Double>)\r\n    override var a: Double\r\n    override var b: Double\r\n
    override var c: Double\r\n    override var d: Double\r\n    override var e: Double\r\n    override var f: Double\r\n
    override var m11: Double\r\n    override var m12: Double\r\n    override var m13: Double\r\n    override var m14:
Double\r\n    override var m21: Double\r\n    override var m22: Double\r\n    override var m23: Double\r\n
    override var m24: Double\r\n    override var m31: Double\r\n    override var m32: Double\r\n    override var m33:
Double\r\n    override var m34: Double\r\n    override var m41: Double\r\n    override var m42: Double\r\n
    override var m43: Double\r\n    override var m44: Double\r\n    fun multiplySelf(other: DOMMatrix):
DOMMatrix\r\n    fun preMultiplySelf(other: DOMMatrix): DOMMatrix\r\n    fun translateSelf(tx: Double, ty:
Double, tz: Double = definedExternally): DOMMatrix\r\n    fun scaleSelf(scale: Double, originX: Double =
definedExternally, originY: Double = definedExternally): DOMMatrix\r\n    fun scale3dSelf(scale: Double, originX:
Double = definedExternally, originY: Double = definedExternally, originZ: Double = definedExternally):
DOMMatrix\r\n    fun scaleNonUniformSelf(scaleX: Double, scaleY: Double = definedExternally, scaleZ: Double =
definedExternally, originX: Double = definedExternally, originY: Double = definedExternally, originZ: Double =
definedExternally): DOMMatrix\r\n    fun rotateSelf(angle: Double, originX: Double = definedExternally, originY:
Double = definedExternally): DOMMatrix\r\n    fun rotateFromVectorSelf(x: Double, y: Double): DOMMatrix\r\n
    fun rotateAxisAngleSelf(x: Double, y: Double, z: Double, angle: Double): DOMMatrix\r\n    fun skewXSelf(sx:
Double): DOMMatrix\r\n    fun skewYSelf(sy: Double): DOMMatrix\r\n    fun invertSelf(): DOMMatrix\r\n    fun

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TextTrackKind.Companion.METADATA: TextTrackKind get() =
\"metadata\".asDynamic().unsafeCast<TextTrackKind>()\r\n\r\n/* please, don't implement this interface!
*\r\n\r\npublic external interface SelectionMode {\r\n  companion object\r\n}\r\n\r\npublic inline val
SelectionMode.Companion.SELECT: SelectionMode get() =
\"select\".asDynamic().unsafeCast<SelectionMode>()\r\n\r\npublic inline val SelectionMode.Companion.START:
SelectionMode get() = \"start\".asDynamic().unsafeCast<SelectionMode>()\r\n\r\npublic inline val
SelectionMode.Companion.END: SelectionMode get() =
\"end\".asDynamic().unsafeCast<SelectionMode>()\r\n\r\npublic inline val SelectionMode.Companion.PRESERVE:
SelectionMode get() = \"preserve\".asDynamic().unsafeCast<SelectionMode>()\r\n\r\n\r\n/* please, don't implement
this interface! *\r\n\r\npublic external interface CanvasFillRule {\r\n  companion object\r\n}\r\n\r\npublic inline val
CanvasFillRule.Companion.NONZERO: CanvasFillRule get() =
\"nonzero\".asDynamic().unsafeCast<CanvasFillRule>()\r\n\r\npublic inline val
CanvasFillRule.Companion.EVENODD: CanvasFillRule get() =
\"evenodd\".asDynamic().unsafeCast<CanvasFillRule>()\r\n\r\n\r\n/* please, don't implement this interface!
*\r\n\r\npublic external interface ImageSmoothingQuality {\r\n  companion object\r\n}\r\n\r\npublic inline val
ImageSmoothingQuality.Companion.LOW: ImageSmoothingQuality get() =
\"low\".asDynamic().unsafeCast<ImageSmoothingQuality>()\r\n\r\npublic inline val
ImageSmoothingQuality.Companion.MEDIUM: ImageSmoothingQuality get() =
\"medium\".asDynamic().unsafeCast<ImageSmoothingQuality>()\r\n\r\npublic inline val
ImageSmoothingQuality.Companion.HIGH: ImageSmoothingQuality get() =
\"high\".asDynamic().unsafeCast<ImageSmoothingQuality>()\r\n\r\n\r\n/* please, don't implement this interface!
*\r\n\r\npublic external interface CanvasLineCap {\r\n  companion object\r\n}\r\n\r\npublic inline val
CanvasLineCap.Companion.BUTT: CanvasLineCap get() =
\"butt\".asDynamic().unsafeCast<CanvasLineCap>()\r\n\r\npublic inline val CanvasLineCap.Companion.ROUND:
CanvasLineCap get() = \"round\".asDynamic().unsafeCast<CanvasLineCap>()\r\n\r\npublic inline val
CanvasLineCap.Companion.SQUARE: CanvasLineCap get() =
\"square\".asDynamic().unsafeCast<CanvasLineCap>()\r\n\r\n\r\n/* please, don't implement this interface! *\r\n\r\npublic
external interface CanvasLineJoin {\r\n  companion object\r\n}\r\n\r\npublic inline val
CanvasLineJoin.Companion.ROUND: CanvasLineJoin get() =
\"round\".asDynamic().unsafeCast<CanvasLineJoin>()\r\n\r\npublic inline val CanvasLineJoin.Companion.BEVEL:
CanvasLineJoin get() = \"bevel\".asDynamic().unsafeCast<CanvasLineJoin>()\r\n\r\npublic inline val
CanvasLineJoin.Companion.MITER: CanvasLineJoin get() =
\"miter\".asDynamic().unsafeCast<CanvasLineJoin>()\r\n\r\n\r\n/* please, don't implement this interface! *\r\n\r\npublic
external interface CanvasTextAlign {\r\n  companion object\r\n}\r\n\r\npublic inline val
CanvasTextAlign.Companion.START: CanvasTextAlign get() =
\"start\".asDynamic().unsafeCast<CanvasTextAlign>()\r\n\r\npublic inline val CanvasTextAlign.Companion.END:
CanvasTextAlign get() = \"end\".asDynamic().unsafeCast<CanvasTextAlign>()\r\n\r\npublic inline val
CanvasTextAlign.Companion.LEFT: CanvasTextAlign get() =
\"left\".asDynamic().unsafeCast<CanvasTextAlign>()\r\n\r\npublic inline val CanvasTextAlign.Companion.RIGHT:
CanvasTextAlign get() = \"right\".asDynamic().unsafeCast<CanvasTextAlign>()\r\n\r\npublic inline val
CanvasTextAlign.Companion.CENTER: CanvasTextAlign get() =
\"center\".asDynamic().unsafeCast<CanvasTextAlign>()\r\n\r\n\r\n/* please, don't implement this interface! *\r\n\r\npublic
external interface CanvasTextBaseline {\r\n  companion object\r\n}\r\n\r\npublic inline val
CanvasTextBaseline.Companion.TOP: CanvasTextBaseline get() =
\"top\".asDynamic().unsafeCast<CanvasTextBaseline>()\r\n\r\npublic inline val
CanvasTextBaseline.Companion.HANGING: CanvasTextBaseline get() =
\"hanging\".asDynamic().unsafeCast<CanvasTextBaseline>()\r\n\r\npublic inline val
CanvasTextBaseline.Companion.MIDDLE: CanvasTextBaseline get() =

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\"middle\".asDynamic().unsafeCast<CanvasTextBaseline>()\r\npublic inline val
CanvasTextBaseline.Companion.ALPHABETIC: CanvasTextBaseline get() =
\"alphabetic\".asDynamic().unsafeCast<CanvasTextBaseline>()\r\npublic inline val
CanvasTextBaseline.Companion.IDEOGRAPHIC: CanvasTextBaseline get() =
\"ideographic\".asDynamic().unsafeCast<CanvasTextBaseline>()\r\npublic inline val
CanvasTextBaseline.Companion.BOTTOM: CanvasTextBaseline get() =
\"bottom\".asDynamic().unsafeCast<CanvasTextBaseline>()\r\n\r\n/* please, don't implement this interface!
*/\r\npublic external interface CanvasDirection {\r\n    companion object\r\n}\r\npublic inline val
CanvasDirection.Companion.LTR: CanvasDirection get() =
\"ltr\".asDynamic().unsafeCast<CanvasDirection>()\r\npublic inline val CanvasDirection.Companion.RTL:
CanvasDirection get() = \"rtl\".asDynamic().unsafeCast<CanvasDirection>()\r\npublic inline val
CanvasDirection.Companion.INHERIT: CanvasDirection get() =
\"inherit\".asDynamic().unsafeCast<CanvasDirection>()\r\n\r\n/* please, don't implement this interface! */\r\npublic
external interface ScrollRestoration {\r\n    companion object\r\n}\r\npublic inline val
ScrollRestoration.Companion.AUTO: ScrollRestoration get() =
\"auto\".asDynamic().unsafeCast<ScrollRestoration>()\r\npublic inline val
ScrollRestoration.Companion.MANUAL: ScrollRestoration get() =
\"manual\".asDynamic().unsafeCast<ScrollRestoration>()\r\n\r\n/* please, don't implement this interface!
*/\r\npublic external interface ImageOrientation {\r\n    companion object\r\n}\r\npublic inline val
ImageOrientation.Companion.NONE: ImageOrientation get() =
\"none\".asDynamic().unsafeCast<ImageOrientation>()\r\npublic inline val ImageOrientation.Companion.FLIPY:
ImageOrientation get() = \"flipY\".asDynamic().unsafeCast<ImageOrientation>()\r\n\r\n/* please, don't implement
this interface! */\r\npublic external interface PremultiplyAlpha {\r\n    companion object\r\n}\r\npublic inline val
PremultiplyAlpha.Companion.NONE: PremultiplyAlpha get() =
\"none\".asDynamic().unsafeCast<PremultiplyAlpha>()\r\npublic inline val
PremultiplyAlpha.Companion.PREMULTIPLY: PremultiplyAlpha get() =
\"premultiply\".asDynamic().unsafeCast<PremultiplyAlpha>()\r\npublic inline val
PremultiplyAlpha.Companion.DEFAULT: PremultiplyAlpha get() =
\"default\".asDynamic().unsafeCast<PremultiplyAlpha>()\r\n\r\n/* please, don't implement this interface!
*/\r\npublic external interface ColorSpaceConversion {\r\n    companion object\r\n}\r\npublic inline val
ColorSpaceConversion.Companion.NONE: ColorSpaceConversion get() =
\"none\".asDynamic().unsafeCast<ColorSpaceConversion>()\r\npublic inline val
ColorSpaceConversion.Companion.DEFAULT: ColorSpaceConversion get() =
\"default\".asDynamic().unsafeCast<ColorSpaceConversion>()\r\n\r\n/* please, don't implement this interface!
*/\r\npublic external interface ResizeQuality {\r\n    companion object\r\n}\r\npublic inline val
ResizeQuality.Companion.PIXELATED: ResizeQuality get() =
\"pixelated\".asDynamic().unsafeCast<ResizeQuality>()\r\npublic inline val ResizeQuality.Companion.LOW:
ResizeQuality get() = \"low\".asDynamic().unsafeCast<ResizeQuality>()\r\npublic inline val
ResizeQuality.Companion.MEDIUM: ResizeQuality get() =
\"medium\".asDynamic().unsafeCast<ResizeQuality>()\r\npublic inline val ResizeQuality.Companion.HIGH:
ResizeQuality get() = \"high\".asDynamic().unsafeCast<ResizeQuality>()\r\n\r\n/* please, don't implement this
interface! */\r\npublic external interface BinaryType {\r\n    companion object\r\n}\r\npublic inline val
BinaryType.Companion.BLOB: BinaryType get() = \"blob\".asDynamic().unsafeCast<BinaryType>()\r\npublic
inline val BinaryType.Companion.ARRAYBUFFER: BinaryType get() =
\"arraybuffer\".asDynamic().unsafeCast<BinaryType>()\r\n\r\n/* please, don't implement this interface! */\r\npublic
external interface WorkerType {\r\n    companion object\r\n}\r\npublic inline val
WorkerType.Companion.CLASSIC: WorkerType get() =
\"classic\".asDynamic().unsafeCast<WorkerType>()\r\npublic inline val WorkerType.Companion.MODULE:

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WorkerType get() = \"module\".asDynamic().unsafeCast<WorkerType>()\r\n\r\n/* please, don't implement this
interface! */\r\npublic external interface ShadowRootMode {\r\n    companion object\r\n}\r\npublic inline val
ShadowRootMode.Companion.OPEN: ShadowRootMode get() =
\"open\".asDynamic().unsafeCast<ShadowRootMode>()\r\npublic inline val
ShadowRootMode.Companion.CLOSED: ShadowRootMode get() =
\"closed\".asDynamic().unsafeCast<ShadowRootMode>()\r\n\r\n/* please, don't implement this interface!
*/\r\npublic external interface ScrollBehavior {\r\n    companion object\r\n}\r\npublic inline val
ScrollBehavior.Companion.AUTO: ScrollBehavior get() =
\"auto\".asDynamic().unsafeCast<ScrollBehavior>()\r\npublic inline val ScrollBehavior.Companion.INSTANT:
ScrollBehavior get() = \"instant\".asDynamic().unsafeCast<ScrollBehavior>()\r\npublic inline val
ScrollBehavior.Companion.SMOOTH: ScrollBehavior get() =
\"smooth\".asDynamic().unsafeCast<ScrollBehavior>()\r\n\r\n/* please, don't implement this interface! */\r\npublic
external interface ScrollLogicalPosition {\r\n    companion object\r\n}\r\npublic inline val
ScrollLogicalPosition.Companion.START: ScrollLogicalPosition get() =
\"start\".asDynamic().unsafeCast<ScrollLogicalPosition>()\r\npublic inline val
ScrollLogicalPosition.Companion.CENTER: ScrollLogicalPosition get() =
\"center\".asDynamic().unsafeCast<ScrollLogicalPosition>()\r\npublic inline val
ScrollLogicalPosition.Companion.END: ScrollLogicalPosition get() =
\"end\".asDynamic().unsafeCast<ScrollLogicalPosition>()\r\npublic inline val
ScrollLogicalPosition.Companion.NEAREST: ScrollLogicalPosition get() =
\"nearest\".asDynamic().unsafeCast<ScrollLogicalPosition>()\r\n\r\n/* please, don't implement this interface!
*/\r\npublic external interface CSSBoxType {\r\n    companion object\r\n}\r\npublic inline val
CSSBoxType.Companion.MARGIN: CSSBoxType get() =
\"margin\".asDynamic().unsafeCast<CSSBoxType>()\r\npublic inline val CSSBoxType.Companion.BORDER:
CSSBoxType get() = \"border\".asDynamic().unsafeCast<CSSBoxType>()\r\npublic inline val
CSSBoxType.Companion.PADDING: CSSBoxType get() =
\"padding\".asDynamic().unsafeCast<CSSBoxType>()\r\npublic inline val CSSBoxType.Companion.CONTENT:
CSSBoxType get() = \"content\".asDynamic().unsafeCast<CSSBoxType>()\r\n\r\n\r\n\"/*\r\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n *\/\r\n\r\n// NOTE: THIS FILE IS AUTO-
GENERATED, DO NOT EDIT!\r\n// See libraries/tools/idl2k for
details\r\n\r\n@file:Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\r\npackage
org.w3c.fetch\r\n\r\nimport kotlin.js.*\r\nimport org.khronos.webgl.*\r\nimport org.w3c.css.masking.*\r\nimport
org.w3c.dom.*\r\nimport org.w3c.dom.clipboard.*\r\nimport org.w3c.dom.css.*\r\nimport
org.w3c.dom.events.*\r\nimport org.w3c.dom.mediacapture.*\r\nimport org.w3c.dom.parsing.*\r\nimport
org.w3c.dom.pointerevents.*\r\nimport org.w3c.dom.svg.*\r\nimport org.w3c.dom.url.*\r\nimport
org.w3c.files.*\r\nimport org.w3c.notifications.*\r\nimport org.w3c.performance.*\r\nimport
org.w3c.workers.*\r\nimport org.w3c.xhr.*\r\n\r\n\r\n/* Exposes the JavaScript
[Headers](https://developer.mozilla.org/en/docs/Web/API/Headers) to Kotlin\r\n */\r\npublic external open class
Headers(init: dynamic = definedExternally) {\r\n    fun append(name: String, value: String): Unit\r\n    fun
delete(name: String): Unit\r\n    fun get(name: String): String?\r\n    fun has(name: String): Boolean\r\n    fun
set(name: String, value: String): Unit\r\n}\r\n\r\n\r\n/* Exposes the JavaScript
[Body](https://developer.mozilla.org/en/docs/Web/API/Body) to Kotlin\r\n */\r\npublic external interface Body {\r\n
    val bodyUsed: Boolean\r\n    fun arrayBuffer(): Promise<ArrayBuffer>\r\n    fun blob(): Promise<Blob>\r\n    fun
formData(): Promise<FormData>\r\n    fun json(): Promise<Any?>\r\n    fun text():
Promise<String>\r\n}\r\n\r\n\r\n/* Exposes the JavaScript
[Request](https://developer.mozilla.org/en/docs/Web/API/Request) to Kotlin\r\n */\r\npublic external open class
Request(input: dynamic, init: RequestInit = definedExternally) : Body {\r\n    open val method: String\r\n    open val

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url: String\r\n  open val headers: Headers\r\n  open val type: RequestType\r\n  open val destination:
RequestDestination\r\n  open val referrer: String\r\n  open val referrerPolicy: dynamic\r\n  open val mode:
RequestMode\r\n  open val credentials: RequestCredentials\r\n  open val cache: RequestCache\r\n  open val
redirect: RequestRedirect\r\n  open val integrity: String\r\n  open val keepalive: Boolean\r\n  override val
bodyUsed: Boolean\r\n  fun clone(): Request\r\n  override fun arrayBuffer(): Promise<ArrayBuffer>\r\n
override fun blob(): Promise<Blob>\r\n  override fun formData(): Promise<FormData>\r\n  override fun json():
Promise<Any?>\r\n  override fun text(): Promise<String>\r\n}\r\n\r\npublic external interface RequestInit {\r\n
var method: String?\r\n  get() = definedExternally\r\n  set(value) = definedExternally\r\n  var headers:
dynamic\r\n  get() = definedExternally\r\n  set(value) = definedExternally\r\n  var body: dynamic\r\n
get() = definedExternally\r\n  set(value) = definedExternally\r\n  var referrer: String?\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n  var referrerPolicy: dynamic\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n  var mode: RequestMode?\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n  var credentials: RequestCredentials?\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n  var cache: RequestCache?\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n  var redirect: RequestRedirect?\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n  var integrity: String?\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n  var keepalive: Boolean?\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n  var window: Any?\r\n  get() =
definedExternally\r\n  set(value) = definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
RequestInit(method: String? = undefined, headers: dynamic = undefined, body: dynamic = undefined, referrer:
String? = undefined, referrerPolicy: dynamic = undefined, mode: RequestMode? = undefined, credentials:
RequestCredentials? = undefined, cache: RequestCache? = undefined, redirect: RequestRedirect? = undefined,
integrity: String? = undefined, keepalive: Boolean? = undefined, window: Any? = undefined): RequestInit {\r\n
val o = js("{}")\r\n\r\n  o["method"] = method\r\n  o["headers"] = headers\r\n  o["body"] = body\r\n
o["referrer"] = referrer\r\n  o["referrerPolicy"] = referrerPolicy\r\n  o["mode"] = mode\r\n  o["credentials"]
= credentials\r\n  o["cache"] = cache\r\n  o["redirect"] = redirect\r\n  o["integrity"] = integrity\r\n
o["keepalive"] = keepalive\r\n  o["window"] = window\r\n\r\n  return o\r\n}\r\n\r\n/**\r\n * Exposes the
JavaScript [Response](https://developer.mozilla.org/en/docs/Web/API/Response) to Kotlin\r\n */\r\npublic external
open class Response(body: dynamic = definedExternally, init: ResponseInit = definedExternally) : Body {\r\n
open val type: ResponseType\r\n  open val url: String\r\n  open val redirected: Boolean\r\n  open val status:
Short\r\n  open val ok: Boolean\r\n  open val statusText: String\r\n  open val headers: Headers\r\n  open val
body: dynamic\r\n  open val trailer: Promise<Headers>\r\n  override val bodyUsed: Boolean\r\n  fun clone():
Response\r\n  override fun arrayBuffer(): Promise<ArrayBuffer>\r\n  override fun blob(): Promise<Blob>\r\n
override fun formData(): Promise<FormData>\r\n  override fun json(): Promise<Any?>\r\n  override fun text():
Promise<String>\r\n\r\n  companion object {\r\n    fun error(): Response\r\n    fun redirect(url: String, status:
Short = definedExternally): Response\r\n  }\r\n}\r\n\r\npublic external interface ResponseInit {\r\n  var status:
Short? /* = 200 */\r\n  get() = definedExternally\r\n  set(value) = definedExternally\r\n  var statusText:
String? /* = "OK" */\r\n  get() = definedExternally\r\n  set(value) = definedExternally\r\n  var headers:
dynamic\r\n  get() = definedExternally\r\n  set(value) =
definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun ResponseInit(status: Short? = 200,
statusText: String? = "OK", headers: dynamic = undefined): ResponseInit {\r\n  val o = js("{}")\r\n\r\n
o["status"] = status\r\n  o["statusText"] = statusText\r\n  o["headers"] = headers\r\n\r\n  return
o\r\n}\r\n\r\n/* please, don't implement this interface! */\r\npublic external interface RequestType {\r\n  companion
object\r\n}\r\n\r\npublic inline val RequestType.Companion.EMPTY: RequestType get() =
""\r\n\r\npublic inline val RequestType.Companion.AUDIO: RequestType
get() = "audio"\r\n\r\npublic inline val RequestType.Companion.FONT:
RequestType get() = "font"\r\n\r\npublic inline val
RequestType.Companion.IMAGE: RequestType get() =

```

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\"image\".asDynamic().unsafeCast<RequestType>()\r\npublic inline val RequestType.Companion.SCRIPT:
RequestType get() = \"script\".asDynamic().unsafeCast<RequestType>()\r\npublic inline val
RequestType.Companion.STYLE: RequestType get() =
\"style\".asDynamic().unsafeCast<RequestType>()\r\npublic inline val RequestType.Companion.TRACK:
RequestType get() = \"track\".asDynamic().unsafeCast<RequestType>()\r\npublic inline val
RequestType.Companion.VIDEO: RequestType get() =
\"video\".asDynamic().unsafeCast<RequestType>()\r\n\r\n/* please, don't implement this interface! */\r\npublic
external interface RequestDestination {\r\n    companion object\r\n}\r\npublic inline val
RequestDestination.Companion.EMPTY: RequestDestination get() =
\"\".asDynamic().unsafeCast<RequestDestination>()\r\npublic inline val
RequestDestination.Companion.DOCUMENT: RequestDestination get() =
\"document\".asDynamic().unsafeCast<RequestDestination>()\r\npublic inline val
RequestDestination.Companion.EMBED: RequestDestination get() =
\"embed\".asDynamic().unsafeCast<RequestDestination>()\r\npublic inline val
RequestDestination.Companion.FONT: RequestDestination get() =
\"font\".asDynamic().unsafeCast<RequestDestination>()\r\npublic inline val
RequestDestination.Companion.IMAGE: RequestDestination get() =
\"image\".asDynamic().unsafeCast<RequestDestination>()\r\npublic inline val
RequestDestination.Companion.MANIFEST: RequestDestination get() =
\"manifest\".asDynamic().unsafeCast<RequestDestination>()\r\npublic inline val
RequestDestination.Companion.MEDIA: RequestDestination get() =
\"media\".asDynamic().unsafeCast<RequestDestination>()\r\npublic inline val
RequestDestination.Companion.OBJECT: RequestDestination get() =
\"object\".asDynamic().unsafeCast<RequestDestination>()\r\npublic inline val
RequestDestination.Companion.REPORT: RequestDestination get() =
\"report\".asDynamic().unsafeCast<RequestDestination>()\r\npublic inline val
RequestDestination.Companion.SCRIPT: RequestDestination get() =
\"script\".asDynamic().unsafeCast<RequestDestination>()\r\npublic inline val
RequestDestination.Companion.SERVICEWORKER: RequestDestination get() =
\"serviceworker\".asDynamic().unsafeCast<RequestDestination>()\r\npublic inline val
RequestDestination.Companion.SHAREDWORKER: RequestDestination get() =
\"sharedworker\".asDynamic().unsafeCast<RequestDestination>()\r\npublic inline val
RequestDestination.Companion.STYLE: RequestDestination get() =
\"style\".asDynamic().unsafeCast<RequestDestination>()\r\npublic inline val
RequestDestination.Companion.WORKER: RequestDestination get() =
\"worker\".asDynamic().unsafeCast<RequestDestination>()\r\npublic inline val
RequestDestination.Companion.XSLT: RequestDestination get() =
\"xslt\".asDynamic().unsafeCast<RequestDestination>()\r\n\r\n/* please, don't implement this interface! */\r\npublic
external interface RequestMode {\r\n    companion object\r\n}\r\npublic inline val
RequestMode.Companion.NAVIGATE: RequestMode get() =
\"navigate\".asDynamic().unsafeCast<RequestMode>()\r\npublic inline val
RequestMode.Companion.SAME_ORIGIN: RequestMode get() = \"same-
origin\".asDynamic().unsafeCast<RequestMode>()\r\npublic inline val RequestMode.Companion.NO_CORS:
RequestMode get() = \"no-cors\".asDynamic().unsafeCast<RequestMode>()\r\npublic inline val
RequestMode.Companion.CORS: RequestMode get() = \"cors\".asDynamic().unsafeCast<RequestMode>()\r\n\r\n/*
please, don't implement this interface! */\r\npublic external interface RequestCredentials {\r\n    companion
object\r\n}\r\npublic inline val RequestCredentials.Companion.OMIT: RequestCredentials get() =
\"omit\".asDynamic().unsafeCast<RequestCredentials>()\r\npublic inline val

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RequestCredentials.Companion.SAME_ORIGIN: RequestCredentials get() = \"same-
origin\".asDynamic().unsafeCast<RequestCredentials>()\r\npublic inline val
RequestCredentials.Companion.INCLUDE: RequestCredentials get() =
\"include\".asDynamic().unsafeCast<RequestCredentials>()\r\n\r\n/* please, don't implement this interface!
*/\r\npublic external interface RequestCache {\r\n    companion object\r\n}\r\npublic inline val
RequestCache.Companion.DEFAULT: RequestCache get() =
\"default\".asDynamic().unsafeCast<RequestCache>()\r\npublic inline val RequestCache.Companion.NO_STORE:
RequestCache get() = \"no-store\".asDynamic().unsafeCast<RequestCache>()\r\npublic inline val
RequestCache.Companion.RELOAD: RequestCache get() =
\"reload\".asDynamic().unsafeCast<RequestCache>()\r\npublic inline val RequestCache.Companion.NO_CACHE:
RequestCache get() = \"no-cache\".asDynamic().unsafeCast<RequestCache>()\r\npublic inline val
RequestCache.Companion.FORCE_CACHE: RequestCache get() = \"force-
cache\".asDynamic().unsafeCast<RequestCache>()\r\npublic inline val
RequestCache.Companion.ONLY_IF_CACHED: RequestCache get() = \"only-if-
cached\".asDynamic().unsafeCast<RequestCache>()\r\n\r\n/* please, don't implement this interface! */\r\npublic
external interface RequestRedirect {\r\n    companion object\r\n}\r\npublic inline val
RequestRedirect.Companion.FOLLOW: RequestRedirect get() =
\"follow\".asDynamic().unsafeCast<RequestRedirect>()\r\npublic inline val RequestRedirect.Companion.ERROR:
RequestRedirect get() = \"error\".asDynamic().unsafeCast<RequestRedirect>()\r\npublic inline val
RequestRedirect.Companion.MANUAL: RequestRedirect get() =
\"manual\".asDynamic().unsafeCast<RequestRedirect>()\r\n\r\n/* please, don't implement this interface! */\r\npublic
external interface ResponseType {\r\n    companion object\r\n}\r\npublic inline val
ResponseType.Companion.BASIC: ResponseType get() =
\"basic\".asDynamic().unsafeCast<ResponseType>()\r\npublic inline val ResponseType.Companion.CORS:
ResponseType get() = \"cors\".asDynamic().unsafeCast<ResponseType>()\r\npublic inline val
ResponseType.Companion.DEFAULT: ResponseType get() =
\"default\".asDynamic().unsafeCast<ResponseType>()\r\npublic inline val ResponseType.Companion.ERROR:
ResponseType get() = \"error\".asDynamic().unsafeCast<ResponseType>()\r\npublic inline val
ResponseType.Companion.OPAQUE: ResponseType get() =
\"opaque\".asDynamic().unsafeCast<ResponseType>()\r\npublic inline val
ResponseType.Companion.OPAQUEREDIRECT: ResponseType get() =
\"opaqueredirect\".asDynamic().unsafeCast<ResponseType>()\r\n\r\n\"/*\r\n * Copyright 2010-2018 JetBrains
s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0
license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\n// NOTE: THIS FILE IS AUTO-
GENERATED, DO NOT EDIT!\r\n\r\n// See libraries/tools/idl2k for
details\r\n\r\n@file:Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\r\n\r\npackage
org.w3c.dom.mediacapture\r\n\r\nimport kotlin.js.*\r\nimport org.khronos.webgl.*\r\nimport
org.w3c.css.masking.*\r\nimport org.w3c.dom.*\r\nimport org.w3c.dom.clipboard.*\r\nimport
org.w3c.dom.css.*\r\nimport org.w3c.dom.events.*\r\nimport org.w3c.dom.parsing.*\r\nimport
org.w3c.dom.pointerevents.*\r\nimport org.w3c.dom.svg.*\r\nimport org.w3c.dom.url.*\r\nimport
org.w3c.fetch.*\r\nimport org.w3c.files.*\r\nimport org.w3c.notifications.*\r\nimport
org.w3c.performance.*\r\nimport org.w3c.workers.*\r\nimport org.w3c.xhr.*\r\n\r\n/*\r\n * Exposes the JavaScript
[MediaStream](https://developer.mozilla.org/en/docs/Web/API/MediaStream) to Kotlin\r\n */\r\npublic external
open class MediaStream() : EventTarget {\r\n    constructor(stream: MediaStream)\r\n    constructor(tracks:
Array<MediaStreamTrack>)\r\n    open val id: String\r\n    open val active: Boolean\r\n    var onaddtrack:
((MediaStreamTrackEvent) -> dynamic)?\r\n    var onremovetrack: ((MediaStreamTrackEvent) -> dynamic)?\r\n
fun getAudioTracks(): Array<MediaStreamTrack>\r\n    fun getVideoTracks(): Array<MediaStreamTrack>\r\n
fun getTracks(): Array<MediaStreamTrack>\r\n    fun getTrackById(trackId: String): MediaStreamTrack?\r\n    fun

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addTrack(track: MediaStreamTrack): Unit\r\n fun removeTrack(track: MediaStreamTrack): Unit\r\n fun clone():
MediaStream\r\n}\r\n\r\n**\r\n * Exposes the JavaScript
[MediaStreamTrack](https://developer.mozilla.org/en/docs/Web/API/MediaStreamTrack) to Kotlin\r\n *^\r\n\r\npublic
external abstract class MediaStreamTrack : EventTarget {\r\n open val kind: String\r\n open val id: String\r\n
open val label: String\r\n open var enabled: Boolean\r\n open val muted: Boolean\r\n open var onmute:
((Event) -> dynamic)?\r\n open var onunmute: ((Event) -> dynamic)?\r\n open val readyState:
MediaStreamTrackState\r\n open var onended: ((Event) -> dynamic)?\r\n open var onoverconstrained: ((Event) -
> dynamic)?\r\n fun clone(): MediaStreamTrack\r\n fun stop(): Unit\r\n fun getCapabilities():
MediaTrackCapabilities\r\n fun getConstraints(): MediaTrackConstraints\r\n fun getSettings():
MediaTrackSettings\r\n fun applyConstraints(constraints: MediaTrackConstraints = definedExternally):
Promise<Unit>\r\n}\r\n\r\n**\r\n * Exposes the JavaScript
[MediaTrackSupportedConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaTrackSupportedConstrain
ts) to Kotlin\r\n *^\r\n\r\npublic external interface MediaTrackSupportedConstraints {\r\n var width: Boolean? /* =
true */\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var height: Boolean? /* = true
*/\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var aspectRatio: Boolean? /* = true
*/\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var frameRate: Boolean? /* = true
*/\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var facingMode: Boolean? /* = true
*/\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var resizeMode: Boolean? /* = true
*/\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var volume: Boolean? /* = true
*/\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var sampleRate: Boolean? /* = true
*/\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var sampleSize: Boolean? /* = true
*/\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var echoCancellation: Boolean? /*
= true */\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var autoGainControl:
Boolean? /* = true */\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var
noiseSuppression: Boolean? /* = true */\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n
var latency: Boolean? /* = true */\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var
channelCount: Boolean? /* = true */\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n
var deviceId: Boolean? /* = true */\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var
groupId: Boolean? /* = true */\r\n get() = definedExternally\r\n set(value) =
definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun
MediaTrackSupportedConstraints(width: Boolean? = true, height: Boolean? = true, aspectRatio: Boolean? = true,
frameRate: Boolean? = true, facingMode: Boolean? = true, resizeMode: Boolean? = true, volume: Boolean? = true,
sampleRate: Boolean? = true, sampleSize: Boolean? = true, echoCancellation: Boolean? = true, autoGainControl:
Boolean? = true, noiseSuppression: Boolean? = true, latency: Boolean? = true, channelCount: Boolean? = true,
deviceId: Boolean? = true, groupId: Boolean? = true): MediaTrackSupportedConstraints {\r\n val o =
js("{}")\r\n\r\n o["width"] = width\r\n o["height"] = height\r\n o["aspectRatio"] = aspectRatio\r\n
o["frameRate"] = frameRate\r\n o["facingMode"] = facingMode\r\n o["resizeMode"] = resizeMode\r\n
o["volume"] = volume\r\n o["sampleRate"] = sampleRate\r\n o["sampleSize"] = sampleSize\r\n
o["echoCancellation"] = echoCancellation\r\n o["autoGainControl"] = autoGainControl\r\n
o["noiseSuppression"] = noiseSuppression\r\n o["latency"] = latency\r\n o["channelCount"] =
channelCount\r\n o["deviceId"] = deviceId\r\n o["groupId"] = groupId\r\n\r\n return o\r\n}\r\n\r\n\r\npublic
external interface MediaTrackCapabilities {\r\n var width: ULongRange?\r\n get() = definedExternally\r\n
set(value) = definedExternally\r\n var height: ULongRange?\r\n get() = definedExternally\r\n set(value) =
definedExternally\r\n var aspectRatio: DoubleRange?\r\n get() = definedExternally\r\n set(value) =
definedExternally\r\n var frameRate: DoubleRange?\r\n get() = definedExternally\r\n set(value) =
definedExternally\r\n var facingMode: Array<String>?\r\n get() = definedExternally\r\n set(value) =
definedExternally\r\n var resizeMode: Array<String>?\r\n get() = definedExternally\r\n set(value) =
definedExternally\r\n var volume: DoubleRange?\r\n get() = definedExternally\r\n set(value) =

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definedExternally\r\n    var sampleRate: ULongRange?\r\n        get() = definedExternally\r\n        set(value) =
definedExternally\r\n    var sampleSize: ULongRange?\r\n        get() = definedExternally\r\n        set(value) =
definedExternally\r\n    var echoCancellation: Array<Boolean>?\r\n        get() = definedExternally\r\n        set(value)
= definedExternally\r\n    var autoGainControl: Array<Boolean>?\r\n        get() = definedExternally\r\n
set(value) = definedExternally\r\n    var noiseSuppression: Array<Boolean>?\r\n        get() = definedExternally\r\n
set(value) = definedExternally\r\n    var latency: DoubleRange?\r\n        get() = definedExternally\r\n        set(value)
= definedExternally\r\n    var channelCount: ULongRange?\r\n        get() = definedExternally\r\n        set(value) =
definedExternally\r\n    var deviceId: String?\r\n        get() = definedExternally\r\n        set(value) =
definedExternally\r\n    var groupId: String?\r\n        get() = definedExternally\r\n        set(value) =
definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun MediaTrackCapabilities(width:
ULongRange? = undefined, height: ULongRange? = undefined, aspectRatio: DoubleRange? = undefined,
frameRate: DoubleRange? = undefined, facingMode: Array<String>? = undefined, resizeMode: Array<String>? =
undefined, volume: DoubleRange? = undefined, sampleRate: ULongRange? = undefined, sampleSize:
ULongRange? = undefined, echoCancellation: Array<Boolean>? = undefined, autoGainControl: Array<Boolean>?
= undefined, noiseSuppression: Array<Boolean>? = undefined, latency: DoubleRange? = undefined, channelCount:
ULongRange? = undefined, deviceId: String? = undefined, groupId: String? = undefined): MediaTrackCapabilities
{\r\n    val o = js("{}")\r\n\r\n    o["width"] = width\r\n    o["height"] = height\r\n    o["aspectRatio"] =
aspectRatio\r\n    o["frameRate"] = frameRate\r\n    o["facingMode"] = facingMode\r\n    o["resizeMode"] =
resizeMode\r\n    o["volume"] = volume\r\n    o["sampleRate"] = sampleRate\r\n    o["sampleSize"] =
sampleSize\r\n    o["echoCancellation"] = echoCancellation\r\n    o["autoGainControl"] = autoGainControl\r\n
o["noiseSuppression"] = noiseSuppression\r\n    o["latency"] = latency\r\n    o["channelCount"] =
channelCount\r\n    o["deviceId"] = deviceId\r\n    o["groupId"] = groupId\r\n\r\n    return o\r\n}\r\n\r\n/**\r\n *
Exposes the JavaScript
[MediaTrackConstraints](https://developer.mozilla.org/en/docs/Web/API/MediaTrackConstraints) to Kotlin\r\n
*/\r\n\r\npublic external interface MediaTrackConstraints : MediaTrackConstraintSet {\r\n    var advanced:
Array<MediaTrackConstraintSet>?\r\n        get() = definedExternally\r\n        set(value) =
definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun MediaTrackConstraints(advanced:
Array<MediaTrackConstraintSet>? = undefined, width: dynamic = undefined, height: dynamic = undefined,
aspectRatio: dynamic = undefined, frameRate: dynamic = undefined, facingMode: dynamic = undefined,
resizeMode: dynamic = undefined, volume: dynamic = undefined, sampleRate: dynamic = undefined, sampleSize:
dynamic = undefined, echoCancellation: dynamic = undefined, autoGainControl: dynamic = undefined,
noiseSuppression: dynamic = undefined, latency: dynamic = undefined, channelCount: dynamic = undefined,
deviceId: dynamic = undefined, groupId: dynamic = undefined): MediaTrackConstraints {\r\n    val o =
js("{}")\r\n\r\n    o["advanced"] = advanced\r\n    o["width"] = width\r\n    o["height"] = height\r\n
o["aspectRatio"] = aspectRatio\r\n    o["frameRate"] = frameRate\r\n    o["facingMode"] = facingMode\r\n
o["resizeMode"] = resizeMode\r\n    o["volume"] = volume\r\n    o["sampleRate"] = sampleRate\r\n
o["sampleSize"] = sampleSize\r\n    o["echoCancellation"] = echoCancellation\r\n    o["autoGainControl"] =
autoGainControl\r\n    o["noiseSuppression"] = noiseSuppression\r\n    o["latency"] = latency\r\n
o["channelCount"] = channelCount\r\n    o["deviceId"] = deviceId\r\n    o["groupId"] = groupId\r\n\r\n    return
o\r\n}\r\n\r\n\r\npublic external interface MediaTrackConstraintSet {\r\n    var width: dynamic\r\n        get() =
definedExternally\r\n        set(value) = definedExternally\r\n    var height: dynamic\r\n        get() =
definedExternally\r\n        set(value) = definedExternally\r\n    var aspectRatio: dynamic\r\n        get() =
definedExternally\r\n        set(value) = definedExternally\r\n    var frameRate: dynamic\r\n        get() =
definedExternally\r\n        set(value) = definedExternally\r\n    var facingMode: dynamic\r\n        get() =
definedExternally\r\n        set(value) = definedExternally\r\n    var resizeMode: dynamic\r\n        get() =
definedExternally\r\n        set(value) = definedExternally\r\n    var volume: dynamic\r\n        get() =
definedExternally\r\n        set(value) = definedExternally\r\n    var sampleRate: dynamic\r\n        get() =
definedExternally\r\n        set(value) = definedExternally\r\n    var sampleSize: dynamic\r\n        get() =

```

```

definedExternally\r\n    set(value) = definedExternally\r\n    var echoCancellation: dynamic\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n    var autoGainControl: dynamic\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n    var noiseSuppression: dynamic\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n    var latency: dynamic\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n    var channelCount: dynamic\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n    var deviceId: dynamic\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n    var groupId: dynamic\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
MediaTrackConstraintSet(width: dynamic = undefined, height: dynamic = undefined, aspectRatio: dynamic =
undefined, frameRate: dynamic = undefined, facingMode: dynamic = undefined, resizeMode: dynamic = undefined,
volume: dynamic = undefined, sampleRate: dynamic = undefined, sampleSize: dynamic = undefined,
echoCancellation: dynamic = undefined, autoGainControl: dynamic = undefined, noiseSuppression: dynamic =
undefined, latency: dynamic = undefined, channelCount: dynamic = undefined, deviceId: dynamic = undefined,
groupId: dynamic = undefined): MediaTrackConstraintSet {\r\n    val o = js("{}")\r\n    o["width"] =
width\r\n    o["height"] = height\r\n    o["aspectRatio"] = aspectRatio\r\n    o["frameRate"] = frameRate\r\n
o["facingMode"] = facingMode\r\n    o["resizeMode"] = resizeMode\r\n    o["volume"] = volume\r\n
o["sampleRate"] = sampleRate\r\n    o["sampleSize"] = sampleSize\r\n    o["echoCancellation"] =
echoCancellation\r\n    o["autoGainControl"] = autoGainControl\r\n    o["noiseSuppression"] =
noiseSuppression\r\n    o["latency"] = latency\r\n    o["channelCount"] = channelCount\r\n    o["deviceId"] =
deviceId\r\n    o["groupId"] = groupId\r\n\r\n    return o\r\n}\r\n\r\n/**\r\n * Exposes the JavaScript
[MediaTrackSettings](https://developer.mozilla.org/en/docs/Web/API/MediaTrackSettings) to Kotlin\r\n
*\r\n\r\npublic external interface MediaTrackSettings {\r\n    var width: Int?\r\n    get() = definedExternally\r\n
set(value) = definedExternally\r\n    var height: Int?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var aspectRatio: Double?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var frameRate: Double?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var facingMode: String?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var resizeMode: String?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var volume: Double?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var sampleRate: Int?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var sampleSize: Int?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var echoCancellation: Boolean?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var autoGainControl: Boolean?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var noiseSuppression: Boolean?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var latency: Double?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var channelCount: Int?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var deviceId: String?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var groupId: String?\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun MediaTrackSettings(width: Int? =
undefined, height: Int? = undefined, aspectRatio: Double? = undefined, frameRate: Double? = undefined,
facingMode: String? = undefined, resizeMode: String? = undefined, volume: Double? = undefined, sampleRate: Int?
= undefined, sampleSize: Int? = undefined, echoCancellation: Boolean? = undefined, autoGainControl: Boolean? =
undefined, noiseSuppression: Boolean? = undefined, latency: Double? = undefined, channelCount: Int? = undefined,
deviceId: String? = undefined, groupId: String? = undefined): MediaTrackSettings {\r\n    val o = js("{}")\r\n
o["width"] = width\r\n    o["height"] = height\r\n    o["aspectRatio"] = aspectRatio\r\n    o["frameRate"] =
frameRate\r\n    o["facingMode"] = facingMode\r\n    o["resizeMode"] = resizeMode\r\n    o["volume"] =
volume\r\n    o["sampleRate"] = sampleRate\r\n    o["sampleSize"] = sampleSize\r\n    o["echoCancellation"] =
echoCancellation\r\n    o["autoGainControl"] = autoGainControl\r\n    o["noiseSuppression"] =
noiseSuppression\r\n    o["latency"] = latency\r\n    o["channelCount"] = channelCount\r\n    o["deviceId"] =

```





```

VideoResizeModeEnum.Companion.NONE: VideoResizeModeEnum get() =
\"none\".asDynamic().unsafeCast<VideoResizeModeEnum>()\r\npublic inline val
VideoResizeModeEnum.Companion.CROP_AND_SCALE: VideoResizeModeEnum get() = \"crop-and-
scale\".asDynamic().unsafeCast<VideoResizeModeEnum>()\r\n\r\n/* please, don't implement this interface!
*/\r\npublic external interface MediaDeviceKind {\r\n    companion object\r\n}\r\npublic inline val
MediaDeviceKind.Companion.AUDIOINPUT: MediaDeviceKind get() =
\"audioinput\".asDynamic().unsafeCast<MediaDeviceKind>()\r\npublic inline val
MediaDeviceKind.Companion.AUDIOOUTPUT: MediaDeviceKind get() =
\"audiooutput\".asDynamic().unsafeCast<MediaDeviceKind>()\r\npublic inline val
MediaDeviceKind.Companion.VIDEOINPUT: MediaDeviceKind get() =
\"videoinput\".asDynamic().unsafeCast<MediaDeviceKind>()\r\n\r\n\", /*\r\n * Copyright 2010-2018 JetBrains s.r.o.
and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\n// NOTE: THIS FILE IS AUTO-GENERATED, DO
NOT EDIT!\r\n// See libraries/tools/idl2k for
details\r\n\r\n@file:Suppress(\"NESTED_CLASS_IN_EXTERNAL_INTERFACE\")\r\npackage
org.w3c.dom.pointerevents\r\n\r\nimport kotlin.js.*\r\nimport org.khronos.webgl.*\r\nimport
org.w3c.css.masking.*\r\nimport org.w3c.dom.*\r\nimport org.w3c.dom.clipboard.*\r\nimport
org.w3c.dom.css.*\r\nimport org.w3c.dom.events.*\r\nimport org.w3c.dom.mediacapture.*\r\nimport
org.w3c.dom.parsing.*\r\nimport org.w3c.dom.svg.*\r\nimport org.w3c.dom.url.*\r\nimport
org.w3c.fetch.*\r\nimport org.w3c.files.*\r\nimport org.w3c.notifications.*\r\nimport
org.w3c.performance.*\r\nimport org.w3c.workers.*\r\nimport org.w3c.xhr.*\r\n\r\npublic external interface
PointerEventInit : MouseEventInit {\r\n    var pointerId: Int? /* = 0 */\r\n        get() = definedExternally\r\n
set(value) = definedExternally\r\n    var width: Double? /* = 1.0 */\r\n        get() = definedExternally\r\n
set(value) = definedExternally\r\n    var height: Double? /* = 1.0 */\r\n        get() = definedExternally\r\n
set(value) = definedExternally\r\n    var pressure: Float? /* = 0f */\r\n        get() = definedExternally\r\n
set(value) = definedExternally\r\n    var tangentialPressure: Float? /* = 0f */\r\n        get() = definedExternally\r\n
set(value) = definedExternally\r\n    var tiltX: Int? /* = 0 */\r\n        get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var tiltY: Int? /* = 0 */\r\n        get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var twist: Int? /* = 0 */\r\n        get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var pointerType: String? /* = \"\" */\r\n        get() = definedExternally\r\n    set(value) =
definedExternally\r\n    var isPrimary: Boolean? /* = false */\r\n        get() = definedExternally\r\n    set(value) =
definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun PointerEventInit(pointerId: Int? = 0,
width: Double? = 1.0, height: Double? = 1.0, pressure: Float? = 0f, tangentialPressure: Float? = 0f, tiltX: Int? = 0,
tiltY: Int? = 0, twist: Int? = 0, pointerType: String? = \"\", isPrimary: Boolean? = false, screenX: Int? = 0, screenY:
Int? = 0, clientX: Int? = 0, clientY: Int? = 0, button: Short? = 0, buttons: Short? = 0, relatedTarget: EventTarget? =
null, ctrlKey: Boolean? = false, shiftKey: Boolean? = false, altKey: Boolean? = false, metaKey: Boolean? = false,
modifierAltGraph: Boolean? = false, modifierCapsLock: Boolean? = false, modifierFn: Boolean? = false,
modifierFnLock: Boolean? = false, modifierHyper: Boolean? = false, modifierNumLock: Boolean? = false,
modifierScrollLock: Boolean? = false, modifierSuper: Boolean? = false, modifierSymbol: Boolean? = false,
modifierSymbolLock: Boolean? = false, view: Window? = null, detail: Int? = 0, bubbles: Boolean? = false,
cancelable: Boolean? = false, composed: Boolean? = false): PointerEventInit {\r\n    val o = js(\"({})\")\r\n\r\n
o[\"pointerId\"] = pointerId\r\n    o[\"width\"] = width\r\n    o[\"height\"] = height\r\n    o[\"pressure\"] = pressure\r\n
o[\"tangentialPressure\"] = tangentialPressure\r\n    o[\"tiltX\"] = tiltX\r\n    o[\"tiltY\"] = tiltY\r\n    o[\"twist\"] =
twist\r\n    o[\"pointerType\"] = pointerType\r\n    o[\"isPrimary\"] = isPrimary\r\n    o[\"screenX\"] = screenX\r\n
o[\"screenY\"] = screenY\r\n    o[\"clientX\"] = clientX\r\n    o[\"clientY\"] = clientY\r\n    o[\"button\"] = button\r\n
o[\"buttons\"] = buttons\r\n    o[\"relatedTarget\"] = relatedTarget\r\n    o[\"ctrlKey\"] = ctrlKey\r\n    o[\"shiftKey\"] =
shiftKey\r\n    o[\"altKey\"] = altKey\r\n    o[\"metaKey\"] = metaKey\r\n    o[\"modifierAltGraph\"] =
modifierAltGraph\r\n    o[\"modifierCapsLock\"] = modifierCapsLock\r\n    o[\"modifierFn\"] = modifierFn\r\n

```





```

*public external abstract class SVGAnimatedNumber {
    open var baseVal: Float
    open val animVal: Float
}
Exposes the JavaScript [SVGAnimatedLength](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedLength) to Kotlin

*public external abstract class SVGAnimatedLength {
    open val baseVal: SVGLength
    open val animVal: SVGLength
}
Exposes the JavaScript [SVGAnimatedAngle](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedAngle) to Kotlin

*public external abstract class SVGAnimatedAngle {
    open val baseVal: SVGAngle
    open val animVal: SVGAngle
}
Exposes the JavaScript [SVGAnimatedString](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedString) to Kotlin

*public external abstract class SVGAnimatedString {
    open var baseVal: String
    open val animVal: String
}
Exposes the JavaScript [SVGAnimatedRect](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedRect) to Kotlin

*public external abstract class SVGAnimatedRect {
    open val baseVal: DOMRect
    open val animVal: DOMRectReadOnly
}
Exposes the JavaScript [SVGAnimatedNumberList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedNumberList) to Kotlin

*public external abstract class SVGAnimatedNumberList {
    open val baseVal: SVGNumberList
    open val animVal: SVGNumberList
}
Exposes the JavaScript [SVGAnimatedLengthList](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedLengthList) to Kotlin

*public external abstract class SVGAnimatedLengthList {
    open val baseVal: SVGLengthList
    open val animVal: SVGLengthList
}
Exposes the JavaScript [SVGStringList](https://developer.mozilla.org/en/docs/Web/API/SVGStringList) to Kotlin

*public external abstract class SVGStringList {
    open val length: Int
    open val numberOfItems: Int
    fun clear(): Unit
    fun initialize(newItem: String): String
    fun getItem(index: Int): String
    fun insertItemBefore(newItem: String, index: Int): String
    fun replaceItem(newItem: String, index: Int): String
    fun removeItem(index: Int): String
    fun appendItem(newItem: String): String
}
@kotlin.internal.InlineOnly inline operator fun SVGStringList.get(index: Int): String? = asDynamic()[index]
@kotlin.internal.InlineOnly inline operator fun SVGStringList.set(index: Int, newItem: String): Unit { asDynamic()[index] = newItem; }
Exposes the JavaScript [SVGUnitTypes](https://developer.mozilla.org/en/docs/Web/API/SVGUnitTypes) to Kotlin

*public external interface SVGUnitTypes {
    companion object {
        val SVG_UNIT_TYPE_UNKNOWN: Short
        val SVG_UNIT_TYPE_USERSPACEONUSE: Short
        val SVG_UNIT_TYPE_OBJECTBOUNDINGBOX: Short
    }
}
Exposes the JavaScript [SVGTTests](https://developer.mozilla.org/en/docs/Web/API/SVGTTests) to Kotlin

*public external interface SVGTTests {
    val requiredExtensions: SVGStringList
    val systemLanguage: SVGStringList
}

*public external interface SVGFitToViewBox {
    val viewBox: SVGAnimatedRect
    val preserveAspectRatio: SVGAnimatedPreserveAspectRatio
}
Exposes the JavaScript [SVGZoomAndPan](https://developer.mozilla.org/en/docs/Web/API/SVGZoomAndPan) to Kotlin

*public external interface SVGZoomAndPan {
    var zoomAndPan: Short
    companion object {
        val SVG_ZOOMANDPAN_UNKNOWN: Short
        val SVG_ZOOMANDPAN_DISABLE: Short
        val SVG_ZOOMANDPAN_MAGNIFY: Short
    }
}
Exposes the JavaScript [SVGURIReference](https://developer.mozilla.org/en/docs/Web/API/SVGURIReference) to Kotlin

*public external interface SVGURIReference {
    val href: SVGAnimatedString
}
Exposes the JavaScript [SVGSVGElement](https://developer.mozilla.org/en/docs/Web/API/SVGSVGElement) to Kotlin

*public external abstract class SVGSVGElement : SVGGraphicsElement, SVGFitToViewBox, SVGZoomAndPan, WindowEventHandlers {
    open val x: SVGAnimatedLength
    open val y: SVGAnimatedLength
    open val width: SVGAnimatedLength
    open val height: SVGAnimatedLength
    open var currentScale: Float
    open val currentTranslate: DOMPointReadOnly
    fun getIntersectionList(rect: DOMRectReadOnly, referenceElement: SVGSVGElement?): NodeList
    fun getEnclosureList(rect: DOMRectReadOnly, referenceElement: SVGSVGElement?): NodeList
    fun checkIntersection(element:

```





[SVGLineElement](https://developer.mozilla.org/en/docs/Web/API/SVGLineElement) to Kotlin  
 external abstract class SVGLineElement : SVGGeometryElement {  
 open val x1: SVGAnimatedLength  
 open val y1: SVGAnimatedLength  
 open val x2: SVGAnimatedLength  
 open val y2: SVGAnimatedLength  
 }  
 Exposes the JavaScript

[SVGMeshElement](https://developer.mozilla.org/en/docs/Web/API/SVGMeshElement) to Kotlin  
 external abstract class SVGMeshElement : SVGGeometryElement, SVGURIReference {  
 }  
 Exposes the JavaScript

[SVGAnimatedPoints](https://developer.mozilla.org/en/docs/Web/API/SVGAnimatedPoints) to Kotlin  
 external interface SVGAnimatedPoints {  
 val points: SVGPointList  
 val animatedPoints: SVGPointList  
 }  
 external abstract class SVGPointList {  
 open val length: Int  
 open val numberOfItems: Int  
 fun clear(): Unit  
 fun initialize(newItem: DOMPoint): DOMPoint  
 fun getItem(index: Int): DOMPoint  
 fun insertItemBefore(newItem: DOMPoint, index: Int): DOMPoint  
 fun replaceItem(newItem: DOMPoint, index: Int): DOMPoint  
 fun removeItem(index: Int): DOMPoint  
 fun appendItem(newItem: DOMPoint): DOMPoint  
 }  
 @kotlin.internal.InlineOnly inline operator fun SVGPointList.get(index: Int): DOMPoint? = asDynamic()[index]  
 @kotlin.internal.InlineOnly inline operator fun SVGPointList.set(index: Int, newItem: DOMPoint): Unit { asDynamic()[index] = newItem; }  
 Exposes the JavaScript

[SVGPolylineElement](https://developer.mozilla.org/en/docs/Web/API/SVGPolylineElement) to Kotlin  
 external abstract class SVGPolylineElement : SVGGeometryElement, SVGAnimatedPoints {  
 }  
 Exposes the JavaScript

[SVGPolygonElement](https://developer.mozilla.org/en/docs/Web/API/SVGPolygonElement) to Kotlin  
 external abstract class SVGPolygonElement : SVGGeometryElement, SVGAnimatedPoints {  
 }  
 Exposes the JavaScript

[SVGTextContentElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextContentElement) to Kotlin  
 external abstract class SVGTextContentElement : SVGGraphicsElement {  
 open val textLength: SVGAnimatedLength  
 open val lengthAdjust: SVGAnimatedEnumeration  
 fun getNumberOfChars(): Int  
 fun getComputedTextLength(): Float  
 fun getSubStringLength(charnum: Int, nchars: Int): Float  
 fun getStartPositionOfChar(charnum: Int): DOMPoint  
 fun getEndPositionOfChar(charnum: Int): DOMPoint  
 fun getExtentOfChar(charnum: Int): DOMRect  
 fun getRotationOfChar(charnum: Int): Float  
 fun getCharNumAtPosition(point: DOMPoint): Int  
 fun selectSubString(charnum: Int, nchars: Int): Unit  
 companion object {  
 val LENGTHADJUST\_UNKNOWN: Short  
 val LENGTHADJUST\_SPACING: Short  
 val LENGTHADJUST\_SPACINGANDGLYPHS: Short  
 }  
 }  
 Exposes the JavaScript

[SVGTextPositioningElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextPositioningElement) to Kotlin  
 external abstract class SVGTextPositioningElement : SVGTextContentElement {  
 open val x: SVGAnimatedLengthList  
 open val y: SVGAnimatedLengthList  
 open val dx: SVGAnimatedLengthList  
 open val dy: SVGAnimatedLengthList  
 open val rotate: SVGAnimatedNumberList  
 }  
 Exposes the JavaScript

[SVGTextElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextElement) to Kotlin  
 external abstract class SVGTextElement : SVGTextPositioningElement {  
 }  
 Exposes the JavaScript

[SVGTSpanElement](https://developer.mozilla.org/en/docs/Web/API/SVGTSpanElement) to Kotlin  
 external abstract class SVGTSpanElement : SVGTextPositioningElement {  
 }  
 Exposes the JavaScript

[SVGTextPathElement](https://developer.mozilla.org/en/docs/Web/API/SVGTextPathElement) to Kotlin  
 external abstract class SVGTextPathElement : SVGTextContentElement, SVGURIReference {  
 open val startOffset: SVGAnimatedLength  
 open val method: SVGAnimatedEnumeration  
 open val spacing: SVGAnimatedEnumeration  
 companion object {  
 val TEXTPATH\_METHODTYPE\_UNKNOWN: Short  
 val TEXTPATH\_METHODTYPE\_ALIGN: Short  
 val TEXTPATH\_METHODTYPE\_STRETCH: Short  
 val TEXTPATH\_SPACINGTYPE\_UNKNOWN: Short  
 }  
 }  
 Exposes the JavaScript







```

definedExternally\r\n    set(value) = definedExternally\r\n    var requireInteraction: Boolean? /* = false */\r\n
get() = definedExternally\r\n    set(value) = definedExternally\r\n    var sticky: Boolean? /* = false */\r\n    get()
= definedExternally\r\n    set(value) = definedExternally\r\n    var data: Any? /* = null */\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n    var actions: Array<NotificationAction>? /* =
arrayOf() */\r\n    get() = definedExternally\r\n    set(value) =
definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun NotificationOptions(dir:
NotificationDirection? = NotificationDirection.AUTO, lang: String? = "", body: String? = "", tag: String? = "",
image: String? = undefined, icon: String? = undefined, badge: String? = undefined, sound: String? = undefined,
vibrate: dynamic = undefined, timestamp: Number? = undefined, renotify: Boolean? = false, silent: Boolean? =
false, noscreen: Boolean? = false, requireInteraction: Boolean? = false, sticky: Boolean? = false, data: Any? = null,
actions: Array<NotificationAction>? = arrayOf()): NotificationOptions {\r\n    val o = js("{}")\r\n\r\n    o["dir"]
= dir\r\n    o["lang"] = lang\r\n    o["body"] = body\r\n    o["tag"] = tag\r\n    o["image"] = image\r\n
o["icon"] = icon\r\n    o["badge"] = badge\r\n    o["sound"] = sound\r\n    o["vibrate"] = vibrate\r\n
o["timestamp"] = timestamp\r\n    o["renotify"] = renotify\r\n    o["silent"] = silent\r\n    o["noscreen"] =
noscreen\r\n    o["requireInteraction"] = requireInteraction\r\n    o["sticky"] = sticky\r\n    o["data"] = data\r\n
o["actions"] = actions\r\n\r\n    return o\r\n}\r\n\r\npublic external interface NotificationAction {\r\n    var action:
String?\r\n    get() = definedExternally\r\n    set(value) = definedExternally\r\n    var title: String?\r\n    get()
= definedExternally\r\n    set(value) = definedExternally\r\n    var icon: String?\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
NotificationAction(action: String?, title: String?, icon: String? = undefined): NotificationAction {\r\n    val o =
js("{}")\r\n\r\n    o["action"] = action\r\n    o["title"] = title\r\n    o["icon"] = icon\r\n\r\n    return
o\r\n}\r\n\r\npublic external interface GetNotificationOptions {\r\n    var tag: String? /* = "" */\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
GetNotificationOptions(tag: String? = ""): GetNotificationOptions {\r\n    val o = js("{}")\r\n\r\n    o["tag"] =
tag\r\n\r\n    return o\r\n}\r\n\r\n/*\r\n * Exposes the JavaScript
[NotificationEvent](https://developer.mozilla.org/en/docs/Web/API/NotificationEvent) to Kotlin\r\n */\r\npublic
external open class NotificationEvent(type: String, eventInitDict: NotificationEventInit) : ExtendableEvent {\r\n
open val notification: Notification\r\n    open val action: String\r\n}\r\n\r\npublic external interface
NotificationEventInit : ExtendableEventInit {\r\n    var notification: Notification?\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n    var action: String? /* = "" */\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n}\r\n\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
NotificationEventInit(notification: Notification?, action: String? = "", bubbles: Boolean? = false, cancelable:
Boolean? = false, composed: Boolean? = false): NotificationEventInit {\r\n    val o = js("{}")\r\n\r\n
o["notification"] = notification\r\n    o["action"] = action\r\n    o["bubbles"] = bubbles\r\n    o["cancelable"] =
cancelable\r\n    o["composed"] = composed\r\n\r\n    return o\r\n}\r\n\r\n/* please, don't implement this interface!
*/\r\n\r\npublic external interface NotificationPermission {\r\n    companion object\r\n}\r\n\r\npublic inline val
NotificationPermission.Companion.DEFAULT: NotificationPermission get() =
"default".asDynamic().unsafeCast<NotificationPermission>()\r\n\r\npublic inline val
NotificationPermission.Companion.DENIED: NotificationPermission get() =
"denied".asDynamic().unsafeCast<NotificationPermission>()\r\n\r\npublic inline val
NotificationPermission.Companion.GRANTED: NotificationPermission get() =
"granted".asDynamic().unsafeCast<NotificationPermission>()\r\n\r\n/* please, don't implement this interface!
*/\r\n\r\npublic external interface NotificationDirection {\r\n    companion object\r\n}\r\n\r\npublic inline val
NotificationDirection.Companion.AUTO: NotificationDirection get() =
"auto".asDynamic().unsafeCast<NotificationDirection>()\r\n\r\npublic inline val
NotificationDirection.Companion.LTR: NotificationDirection get() =
"ltr".asDynamic().unsafeCast<NotificationDirection>()\r\n\r\npublic inline val
NotificationDirection.Companion.RTL: NotificationDirection get() =

```

\"rtl\".asDynamic().unsafeCast<NotificationDirection>()\r\n\r\n\",/\*\r\n \* Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n \*/\r\n\r\n// NOTE: THIS FILE IS AUTO-GENERATED, DO NOT EDIT!\r\n// See libraries/tools/idl2k for

details\r\n\r\n@file:Suppress(\"NESTED\_CLASS\_IN\_EXTERNAL\_INTERFACE\")\r\n\r\npackage org.w3c.workers\r\n\r\nimport kotlin.js.\*\r\nimport org.khronos.webgl.\*\r\nimport org.w3c.css.masking.\*\r\nimport org.w3c.dom.\*\r\nimport org.w3c.dom.clipboard.\*\r\nimport org.w3c.dom.css.\*\r\nimport org.w3c.dom.events.\*\r\nimport org.w3c.dom.mediacapture.\*\r\nimport org.w3c.dom.parsing.\*\r\nimport org.w3c.dom.pointerevents.\*\r\nimport org.w3c.dom.svg.\*\r\nimport org.w3c.dom.url.\*\r\nimport org.w3c.fetch.\*\r\nimport org.w3c.files.\*\r\nimport org.w3c.notifications.\*\r\nimport org.w3c.performance.\*\r\nimport org.w3c.xhr.\*\r\n\r\n/\*\r\n \* Exposes the JavaScript

[ServiceWorkerRegistration](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerRegistration) to Kotlin\r\n\r\n \* \r\n\r\npublic external abstract class ServiceWorkerRegistration : EventTarget {\r\n\r\n open val installing: ServiceWorker?\r\n open val waiting: ServiceWorker?\r\n open val active: ServiceWorker?\r\n open val scope: String\r\n open var onupdatefound: ((Event) -> dynamic)?\r\n open val APISpace: dynamic\r\n fun update(): Promise<Unit>\r\n fun unregister(): Promise<Boolean>\r\n fun methodName(): Promise<dynamic>\r\n fun showNotification(title: String, options: NotificationOptions = definedExternally): Promise<Unit>\r\n fun getNotifications(filter: GetNotificationOptions = definedExternally): Promise<dynamic>\r\n}\r\n\r\n/\*\r\n \* Exposes the JavaScript

[ServiceWorkerGlobalScope](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerGlobalScope) to Kotlin\r\n\r\n \* \r\n\r\npublic external abstract class ServiceWorkerGlobalScope : WorkerGlobalScope {\r\n\r\n open val clients: Clients\r\n open val registration: ServiceWorkerRegistration\r\n open var oninstall: ((Event) -> dynamic)?\r\n open var onactivate: ((Event) -> dynamic)?\r\n open var onfetch: ((FetchEvent) -> dynamic)?\r\n open var onforeignfetch: ((Event) -> dynamic)?\r\n open var onmessage: ((MessageEvent) -> dynamic)?\r\n open var onfunctionalevent: ((Event) -> dynamic)?\r\n open var onnotificationclick: ((NotificationEvent) -> dynamic)?\r\n open var onnotificationclose: ((NotificationEvent) -> dynamic)?\r\n fun skipWaiting(): Promise<Unit>\r\n}\r\n\r\n/\*\r\n \* Exposes the JavaScript

[ServiceWorker](https://developer.mozilla.org/en/docs/Web/API/ServiceWorker) to Kotlin\r\n\r\n \* \r\n\r\npublic external abstract class ServiceWorker : EventTarget, AbstractWorker, UnionMessagePortOrServiceWorker, UnionClientOrMessagePortOrServiceWorker {\r\n\r\n open val scriptURL: String\r\n open val state: ServiceWorkerState\r\n open var onstatechange: ((Event) -> dynamic)?\r\n fun postMessage(message: Any?, transfer: Array<dynamic> = definedExternally): Unit\r\n}\r\n\r\n/\*\r\n \* Exposes the JavaScript

[ServiceWorkerContainer](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerContainer) to Kotlin\r\n\r\n \* \r\n\r\npublic external abstract class ServiceWorkerContainer : EventTarget {\r\n\r\n open val controller: ServiceWorker?\r\n open val ready: Promise<ServiceWorkerRegistration>\r\n open var oncontrollerchange: ((Event) -> dynamic)?\r\n open var onmessage: ((MessageEvent) -> dynamic)?\r\n fun register(scriptURL: String, options: RegistrationOptions = definedExternally): Promise<ServiceWorkerRegistration>\r\n fun getRegistration(clientURL: String = definedExternally): Promise<Any?>\r\n fun getRegistrations(): Promise<dynamic>\r\n fun startMessages(): Unit\r\n}\r\n\r\n\r\npublic external interface RegistrationOptions {\r\n\r\n var scope: String?\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n var type: WorkerType? /\* = WorkerType.CLASSIC \*/\r\n get() = definedExternally\r\n set(value) = definedExternally\r\n}\r\n\r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun RegistrationOptions(scope: String? = undefined, type: WorkerType? = WorkerType.CLASSIC): RegistrationOptions {\r\n\r\n val o = js(\"{\}\")\r\n o[\"scope\"] = scope\r\n o[\"type\"] = type\r\n return o\r\n}\r\n\r\n/\*\r\n \* Exposes the JavaScript

[ServiceWorkerMessageEvent](https://developer.mozilla.org/en/docs/Web/API/ServiceWorkerMessageEvent) to Kotlin\r\n\r\n \* \r\n\r\npublic external open class ServiceWorkerMessageEvent(type: String, eventInitDict: ServiceWorkerMessageEventInit = definedExternally) : Event {\r\n\r\n open val data: Any?\r\n open val origin: String\r\n open val lastEventId: String\r\n open val source: UnionMessagePortOrServiceWorker?\r\n open val



```

Unit {
    public external interface FetchEventInit : ExtendableEventInit {
        var request: Request?
        get() = definedExternally
        set(value) = definedExternally
        var clientId: String? /* = null */
        get() = definedExternally
        set(value) = definedExternally
        var isReload: Boolean? /* = false */
        get() = definedExternally
        set(value) = definedExternally
    }
    @kotlin.internal.InlineOnly
    public inline fun FetchEventInit(request: Request?, clientId: String? = null, isReload: Boolean? = false, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): FetchEventInit {
        val o = js("{}")
        o["request"] = request
        o["clientId"] = clientId
        o["isReload"] = isReload
        o["bubbles"] = bubbles
        o["cancelable"] = cancelable
        o["composed"] = composed
        return o
    }
    public external open class ForeignFetchEvent(type: String, eventInitDict: ForeignFetchEventInit) : ExtendableEvent {
        open val request: Request
        open val origin: String
        fun respondWith(r: Promise<ForeignFetchResponse>): Unit
    }
    public external interface ForeignFetchEventInit : ExtendableEventInit {
        var request: Request?
        get() = definedExternally
        set(value) = definedExternally
        var origin: String? /* = "null" */
        get() = definedExternally
        set(value) = definedExternally
    }
    @kotlin.internal.InlineOnly
    public inline fun ForeignFetchEventInit(request: Request?, origin: String? = "null", bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ForeignFetchEventInit {
        val o = js("{}")
        o["request"] = request
        o["origin"] = origin
        o["bubbles"] = bubbles
        o["cancelable"] = cancelable
        o["composed"] = composed
        return o
    }
    public external interface ForeignFetchResponse {
        var response: Response?
        get() = definedExternally
        set(value) = definedExternally
        var origin: String?
        get() = definedExternally
        set(value) = definedExternally
        var headers: Array<String>?
        get() = definedExternally
        set(value) = definedExternally
    }
    @kotlin.internal.InlineOnly
    public inline fun ForeignFetchResponse(response: Response?, origin: String? = undefined, headers: Array<String>? = undefined): ForeignFetchResponse {
        val o = js("{}")
        o["response"] = response
        o["origin"] = origin
        o["headers"] = headers
        return o
    }
    /** Exposes the JavaScript [ExtendableMessageEvent](https://developer.mozilla.org/en/docs/Web/API/ExtendableMessageEvent) to Kotlin */
    public external open class ExtendableMessageEvent(type: String, eventInitDict: ExtendableMessageEventInit) : ExtendableEvent {
        open val data: Any?
        open val origin: String
        open val lastEventId: String
        open val source: UnionClientOrMessagePortOrServiceWorker?
        open val ports: Array<out MessagePort>?
    }
    public external interface ExtendableMessageEventInit : ExtendableEventInit {
        var data: Any?
        get() = definedExternally
        set(value) = definedExternally
        var origin: String?
        get() = definedExternally
        set(value) = definedExternally
        var lastEventId: String?
        get() = definedExternally
        set(value) = definedExternally
        var source: UnionClientOrMessagePortOrServiceWorker?
        get() = definedExternally
        set(value) = definedExternally
        var ports: Array<MessagePort>?
        get() = definedExternally
        set(value) = definedExternally
    }
    @kotlin.internal.InlineOnly
    public inline fun ExtendableMessageEventInit(data: Any? = undefined, origin: String? = undefined, lastEventId: String? = undefined, source: UnionClientOrMessagePortOrServiceWorker? = undefined, ports: Array<MessagePort>? = undefined, bubbles: Boolean? = false, cancelable: Boolean? = false, composed: Boolean? = false): ExtendableMessageEventInit {
        val o = js("{}")
        o["data"] = data
        o["origin"] = origin
        o["lastEventId"] = lastEventId
        o["source"] = source
        o["ports"] = ports
        o["bubbles"] = bubbles
        o["cancelable"] = cancelable
        o["composed"] = composed
        return o
    }
    /** Exposes the JavaScript [Cache](https://developer.mozilla.org/en/docs/Web/API/Cache) to Kotlin */
    public external abstract class Cache {
        fun match(request: dynamic, options: CacheQueryOptions = definedExternally): Promise<Any?>
        fun matchAll(request: dynamic = definedExternally, options: CacheQueryOptions = definedExternally): Promise<dynamic>
        fun add(request: dynamic): Promise<Unit>
        fun addAll(requests: Array<dynamic>): Promise<Unit>
        fun put(request: dynamic, response: Response): Promise<Unit>
        fun delete(request: dynamic, options: CacheQueryOptions = definedExternally): Promise<Boolean>
        fun keys(request: dynamic = definedExternally, options: CacheQueryOptions = definedExternally): Promise<dynamic>
    }
}

```

```

external interface CacheQueryOptions {
    var ignoreSearch: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var ignoreMethod: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var ignoreVary: Boolean? /* = false */
    get() = definedExternally
    set(value) = definedExternally
    var cacheName: String?
    get() = definedExternally
    set(value) = definedExternally
}

@kotlin.internal.InlineOnly
public inline fun CacheQueryOptions(ignoreSearch: Boolean? = false, ignoreMethod: Boolean? = false, ignoreVary: Boolean? = false, cacheName: String? = undefined): CacheQueryOptions {
    val o = js("{}")
    o["ignoreSearch"] = ignoreSearch
    o["ignoreMethod"] = ignoreMethod
    o["ignoreVary"] = ignoreVary
    o["cacheName"] = cacheName
    return o
}

public external interface CacheBatchOperation {
    var type: String?
    get() = definedExternally
    set(value) = definedExternally
    var request: Request?
    get() = definedExternally
    set(value) = definedExternally
    var response: Response?
    get() = definedExternally
    set(value) = definedExternally
    var options: CacheQueryOptions?
    get() = definedExternally
    set(value) = definedExternally
}

@kotlin.internal.InlineOnly
public inline fun CacheBatchOperation(type: String? = undefined, request: Request? = undefined, response: Response? = undefined, options: CacheQueryOptions? = undefined): CacheBatchOperation {
    val o = js("{}")
    o["type"] = type
    o["request"] = request
    o["response"] = response
    o["options"] = options
    return o
}

/** Exposes the JavaScript [CacheStorage](https://developer.mozilla.org/en/docs/Web/API/CacheStorage) to Kotlin */
public external abstract class CacheStorage {
    fun match(request: dynamic, options: CacheQueryOptions = definedExternally): Promise<Any?>
    fun has(cacheName: String): Promise<Boolean>
    fun open(cacheName: String): Promise<Cache>
    fun delete(cacheName: String): Promise<Boolean>
    fun keys(): Promise<dynamic>
}

public external open class FunctionalEvent : ExtendableEvent

public external @marker interface UnionClientOrMessagePortOrServiceWorker {
    /** please, don't implement this interface! */
}

public external interface ServiceWorkerState {
    companion object {
        public inline val ServiceWorkerState.Companion.INSTALLING: ServiceWorkerState get() = "installing".asDynamic().unsafeCast<ServiceWorkerState>()
        public inline val ServiceWorkerState.Companion.INSTALLED: ServiceWorkerState get() = "installed".asDynamic().unsafeCast<ServiceWorkerState>()
        public inline val ServiceWorkerState.Companion.ACTIVATING: ServiceWorkerState get() = "activating".asDynamic().unsafeCast<ServiceWorkerState>()
        public inline val ServiceWorkerState.Companion.ACTIVATED: ServiceWorkerState get() = "activated".asDynamic().unsafeCast<ServiceWorkerState>()
        public inline val ServiceWorkerState.Companion.REDUNDANT: ServiceWorkerState get() = "redundant".asDynamic().unsafeCast<ServiceWorkerState>()
    }
    /** please, don't implement this interface! */
}

public external interface FrameType {
    companion object {
        public inline val FrameType.Companion.AUXILIARY: FrameType get() = "auxiliary".asDynamic().unsafeCast<FrameType>()
        public inline val FrameType.Companion.TOP_LEVEL: FrameType get() = "top-level".asDynamic().unsafeCast<FrameType>()
        public inline val FrameType.Companion.NESTED: FrameType get() = "nested".asDynamic().unsafeCast<FrameType>()
        public inline val FrameType.Companion.NONE: FrameType get() = "none".asDynamic().unsafeCast<FrameType>()
    }
    /** please, don't implement this interface! */
}

public external interface ClientType {
    companion object {
        public inline val ClientType.Companion.WINDOW: ClientType get() = "window".asDynamic().unsafeCast<ClientType>()
        public inline val ClientType.Companion.WORKER: ClientType get() = "worker".asDynamic().unsafeCast<ClientType>()
        public inline val ClientType.Companion.SHAREDWORKER: ClientType get() = "sharedworker".asDynamic().unsafeCast<ClientType>()
        public inline val ClientType.Companion.ALL: ClientType get() = "all".asDynamic().unsafeCast<ClientType>()
    }
}

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```

```

license that can be found in the license/LICENSE.txt file.\r\n *\r\n\r\n// NOTE: THIS FILE IS AUTO-
GENERATED, DO NOT EDIT!\r\n// See libraries/tools/idl2k for
details\r\n\r\n@file:Suppress(\r\n"NESTED_CLASS_IN_EXTERNAL_INTERFACE\r\n")\r\n\r\npackage
org.w3c.xr\r\n\r\nimport kotlin.js.*\r\nimport org.khronos.webgl.*\r\nimport org.w3c.css.masking.*\r\nimport
org.w3c.dom.*\r\nimport org.w3c.dom.clipboard.*\r\nimport org.w3c.dom.css.*\r\nimport
org.w3c.dom.events.*\r\nimport org.w3c.dom.mediacapture.*\r\nimport org.w3c.dom.parsing.*\r\nimport
org.w3c.dom.pointerevents.*\r\nimport org.w3c.dom.svg.*\r\nimport org.w3c.dom.url.*\r\nimport
org.w3c.fetch.*\r\nimport org.w3c.files.*\r\nimport org.w3c.notifications.*\r\nimport
org.w3c.performance.*\r\nimport org.w3c.workers.*\r\n\r\n\r\n/**\r\n * Exposes the JavaScript
[XMLHttpRequestEventTarget](https://developer.mozilla.org/en/docs/Web/API/XMLHttpRequestEventTarget) to
Kotlin\r\n *\r\n\r\npublic external abstract class XMLHttpRequestEventTarget : EventTarget {\r\n    open var
onloadstart: ((ProgressEvent) -> dynamic)?\r\n    open var onprogress: ((ProgressEvent) -> dynamic)?\r\n    open var
onabort: ((Event) -> dynamic)?\r\n    open var onerror: ((Event) -> dynamic)?\r\n    open var onload: ((Event) ->
dynamic)?\r\n    open var ontimeout: ((Event) -> dynamic)?\r\n    open var onloadend: ((Event) ->
dynamic)?\r\n}\r\n\r\n\r\npublic external abstract class XMLHttpRequestUpload : XMLHttpRequestEventTarget
{\r\n}\r\n\r\n\r\n/**\r\n * Exposes the JavaScript
[XMLHttpRequest](https://developer.mozilla.org/en/docs/Web/API/XMLHttpRequest) to Kotlin\r\n *\r\n\r\npublic
external open class XMLHttpRequest : XMLHttpRequestEventTarget {\r\n    var onreadystatechange: ((Event) ->
dynamic)?\r\n    open val readyState: Short\r\n    var timeout: Int\r\n    var withCredentials: Boolean\r\n    open val
upload: XMLHttpRequestUpload\r\n    open val responseURL: String\r\n    open val status: Short\r\n    open val
statusText: String\r\n    var responseType: XMLHttpRequestResponseType\r\n    open val response: Any?\r\n    open
val responseText: String\r\n    open val responseXML: Document?\r\n    fun open(method: String, url: String):
Unit\r\n    fun open(method: String, url: String, async: Boolean, username: String? = definedExternally, password:
String? = definedExternally): Unit\r\n    fun setRequestHeader(name: String, value: String): Unit\r\n    fun
send(body: dynamic = definedExternally): Unit\r\n    fun abort(): Unit\r\n    fun getResponseHeader(name: String):
String?\r\n    fun getAllResponseHeaders(): String\r\n    fun overrideMimeType(mime: String): Unit\r\n\r\n    companion object {\r\n        val UNSENT: Short\r\n        val OPENED: Short\r\n        val HEADERS_RECEIVED:
Short\r\n        val LOADING: Short\r\n        val DONE: Short\r\n    }\r\n}\r\n\r\n\r\n/**\r\n * Exposes the JavaScript
[FormData](https://developer.mozilla.org/en/docs/Web/API/FormData) to Kotlin\r\n *\r\n\r\npublic external open class
FormData(form: HTMLFormElement = definedExternally) {\r\n    fun append(name: String, value: String): Unit\r\n    fun
append(name: String, value: Blob, filename: String = definedExternally): Unit\r\n    fun delete(name: String):
Unit\r\n    fun get(name: String): dynamic\r\n    fun getAll(name: String): Array<dynamic>\r\n    fun has(name:
String): Boolean\r\n    fun set(name: String, value: String): Unit\r\n    fun set(name: String, value: Blob, filename:
String = definedExternally): Unit\r\n}\r\n\r\n\r\n/**\r\n * Exposes the JavaScript
[ProgressEvent](https://developer.mozilla.org/en/docs/Web/API/ProgressEvent) to Kotlin\r\n *\r\n\r\npublic external
open class ProgressEvent(type: String, eventInitDict: ProgressEventInit = definedExternally) : Event {\r\n    open
val lengthComputable: Boolean\r\n    open val loaded: Int\r\n    open val total: Int\r\n}\r\n\r\n\r\npublic external
interface ProgressEventInit : EventInit {\r\n    var lengthComputable: Boolean? /* = false */\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n    var loaded: Int? /* = 0 */\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n    var total: Int? /* = 0 */\r\n    get() =
definedExternally\r\n    set(value) = definedExternally\r\n}\r\n\r\n\r\n@kotlin.internal.InlineOnly\r\n\r\npublic inline fun
ProgressEventInit(lengthComputable: Boolean? = false, loaded: Int? = 0, total: Int? = 0, bubbles: Boolean? = false,
cancelable: Boolean? = false, composed: Boolean? = false): ProgressEventInit {\r\n    val o = js(\r\n"({})")\r\n\r\n    o["lengthComputable"] = lengthComputable\r\n    o["loaded"] = loaded\r\n    o["total"] = total\r\n    o["bubbles"] = bubbles\r\n    o["cancelable"] = cancelable\r\n    o["composed"] = composed\r\n\r\n    return
o\r\n}\r\n\r\n\r\n/* please, don't implement this interface! */\r\n\r\npublic external interface
XMLHttpRequestResponseType {\r\n    companion object\r\n}\r\n\r\n\r\npublic inline val
XMLHttpRequestResponseType.Companion.EMPTY: XMLHttpRequestResponseType get() =

```

```

"\.asDynamic().unsafeCast<XMLHttpRequestResponseType>()\r\npublic inline val
XMLHttpRequestResponseType.Companion.ARRAYBUFFER: XMLHttpRequestResponseType get() =
"arraybuffer".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\r\npublic inline val
XMLHttpRequestResponseType.Companion.BLOB: XMLHttpRequestResponseType get() =
"blob".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\r\npublic inline val
XMLHttpRequestResponseType.Companion.DOCUMENT: XMLHttpRequestResponseType get() =
"document".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\r\npublic inline val
XMLHttpRequestResponseType.Companion.JSON: XMLHttpRequestResponseType get() =
"json".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\r\npublic inline val
XMLHttpRequestResponseType.Companion.TEXT: XMLHttpRequestResponseType get() =
"text".asDynamic().unsafeCast<XMLHttpRequestResponseType>()\r\n\r\n", "/*\r\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin\r\n\r\nimport
kotlin.annotation.AnnotationRetention.BINARY\r\nimport
kotlin.annotation.AnnotationRetention.SOURCE\r\nimport kotlin.annotation.AnnotationTarget.*\r\nimport
kotlin.internal.RequireKotlin\r\nimport kotlin.internal.RequireKotlinVersionKind\r\nimport
kotlin.reflect.KClass\r\n\r\n/**\r\n * Signals that the annotated annotation class is a marker of an experimental
API.\r\n * Any declaration annotated with that marker is considered an experimental declaration\r\n * and its
call sites should accept the experimental aspect of it either by using [UseExperimental],\r\n * or by being annotated
with that marker themselves, effectively causing further propagation of that experimental aspect.\r\n * This
class is experimental itself and can only be used with the compiler argument ` -Xuse-
experimental=kotlin.Experimental`.\r\n
*/\r\n@Target(ANNOTATION_CLASS)\r\n@Retention(BINARY)\r\n@SinceKotlin("1.2")\r\n@RequireKotlin("
1.2.50", versionKind =
RequireKotlinVersionKind.COMPILER_VERSION)\r\n@Suppress("ANNOTATION_CLASS_MEMBER")\r\npu
blic annotation class Experimental(val level: Level = Level.ERROR) {\r\n    /**\r\n     * Severity of the diagnostic
that should be reported on usages of experimental API which did not explicitly accept the experimental aspect\r\n
* of that API either by using [UseExperimental] or by being annotated with the corresponding marker
annotation.\r\n     */\r\n    public enum class Level {\r\n        /** Specifies that a warning should be reported on
incorrect usages of this experimental API. */\r\n        WARNING,\r\n        /** Specifies that an error should be
reported on incorrect usages of this experimental API. */\r\n        ERROR,\r\n    }\r\n}\r\n\r\n/**\r\n * Allows to use
experimental API denoted by the given markers in the annotated file, declaration, or expression.\r\n * If a
declaration is annotated with [UseExperimental], its usages are **not** required to opt-in to that experimental
API.\r\n * This class is experimental itself and can only be used with the compiler argument ` -Xuse-
experimental=kotlin.Experimental`.\r\n
*/\r\n@Target(\r\n    CLASS, PROPERTY, LOCAL_VARIABLE,
VALUE_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY_GETTER, PROPERTY_SETTER,
EXPRESSION, FILE,
TYPEALIAS)\r\n@Retention(SOURCE)\r\n@SinceKotlin("1.2")\r\n@RequireKotlin("1.2.50", versionKind
= RequireKotlinVersionKind.COMPILER_VERSION)\r\npublic annotation class UseExperimental(\r\n    vararg val
markerClass: KClass<out Annotation>\r\n)\r\n\r\n@Target(CLASS, PROPERTY, CONSTRUCTOR,
FUNCTION, TYPEALIAS)\r\n@Retention(BINARY)\r\ninternal annotation class WasExperimental(\r\n    vararg
val markerClass: KClass<out Annotation>\r\n)\r\n", "package kotlin\r\n\r\nimport
kotlin.annotation.AnnotationTarget.*\r\n\r\n/**\r\n * This annotation marks the standard library API that is
considered experimental and is not subject to the\r\n * [general compatibility
guarantees](https://kotlinlang.org/docs/reference/evolution/components-stability.html) given for the standard
library:\r\n * the behavior of such API may be changed or the API may be removed completely in any further
release.\r\n * > Beware using the annotated API especially if you're developing a library, since your library
might become binary incompatible\r\n * with the future versions of the standard library.\r\n * Any usage of a

```

declaration annotated with `@ExperimentalStdlibApi` must be accepted either by `* annotating that usage with the [UseExperimental] annotation, e.g. @UseExperimental(ExperimentalStdlibApi::class), or by using the compiler argument -Xuse-experimental=kotlin.ExperimentalStdlibApi.`

`@Retention(AnnotationRetention.BINARY)`  
`@Target(Class, ANNOTATION_CLASS, PROPERTY, FIELD, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY_GETTER, PROPERTY_SETTER, TYPEALIAS)`  
`@MustBeDocumented`  
`@ExperimentalStdlibApi`  
`@SinceKotlin("1.3")` // TODO: Remove experimental status from itself and advance SinceKotlin to 1.4  
`public annotation class ExperimentalStdlibApi`  
`"/** Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.`

`*/`  
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`*/`  
`* Allows to infer generic type arguments of a function from the calls in the annotated function parameter of that function.`

`* When this annotation is placed on a generic function parameter of a function, it enables to infer the type arguments of that generic function from the lambda body passed to that parameter.`

`* The calls that affect inference are either members of the receiver type of an annotated function parameter or extensions for that type. The extensions must be themselves annotated with @BuilderInference.`

`* Example: we declare fun <T> sequence(@BuilderInference block: suspend SequenceScope<T>().->Unit): Sequence<T> and use it like val result = sequence { yield("result") }`

`* Here the type argument of the resulting sequence is inferred to String from the argument of the [SequenceScope.yield] function, that is called inside the lambda passed to [sequence].`

`* Note: this annotation is experimental, see [ExperimentalTypeInference] on how to opt-in for it.`

`@Target(VALUE_PARAMETER, FUNCTION, PROPERTY)`  
`@Retention(AnnotationRetention.BINARY)`  
`@SinceKotlin("1.3")`  
`@ExperimentalTypeInference`  
`public annotation class BuilderInference`  
`"/** Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.`

`*/`  
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`*/`  
`* The experimental multiplatform support API marker.`

`* Any usage of a declaration annotated with @ExperimentalMultiplatform must be accepted either by * annotating that usage with the [UseExperimental] annotation, e.g. @UseExperimental(ExperimentalMultiplatform::class), or by using the compiler argument -Xuse-experimental=kotlin.ExperimentalMultiplatform.`

`@Experimental`  
`@MustBeDocumented`  
`@Target(Class, ANNOTATION_CLASS, PROPERTY, FIELD, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION, PROPERTY_GETTER, PROPERTY_SETTER, TYPEALIAS)`  
`@Retention(AnnotationRetention.BINARY)`  
`@RequireKotlin("1.2.50", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)`  
`public annotation class ExperimentalMultiplatform`  
`"/** Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors. Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.`

`*/`  
`* Marks an expected annotation class that it isn't required to have actual counterparts in all platforms.`

`* This annotation is only applicable to expect annotation classes in multiplatform projects and marks that class as "optional".`

`* Optional expected class is allowed to have no corresponding actual class on the platform. Optional annotations can only be used to annotate something, not as types in signatures. If an optional annotation has no corresponding actual class on a platform, the annotation entries where it's used are simply erased when compiling code on that platform.`

`* Note: this annotation is experimental, see [ExperimentalMultiplatform] on how to opt-in for it.`

`@Target(ANNOTATION_CLASS)`  
`@Retention(AnnotationRetention.BINARY)`  
`@ExperimentalMultiplatform`  
`@RequireKotlin("1.2.50", versionKind = RequireKotlinVersionKind.COMPILER_VERSION)`  
`public annotation class OptionalExpectation`  
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`*/`  
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```

Compares this map with other instance with the ordered structural equality.
    @return true, if [other] instance is a [Map] of the same size, all entries of which are contained in the [entries] set of this map.
    override fun equals(other: Any?): Boolean {
        if (other === this) return true
        if (other !is Map<*, *>) return false
        if (size != other.size) return false
        return other.entries.all { containsEntry(it) }
    }
    override operator fun get(key: K): V? = implFindEntry(key)?.value
    /**
     * Returns the hash code value for this map.
     * It is the same as the hashCode of [entries] set.
     */
    override fun hashCode(): Int = entries.hashCode()
    override fun isEmpty(): Boolean = size == 0
    override val size: Int get() = entries.size
    /**
     * Returns a read-only [Set] of all keys in this map.
     * Accessing this property first time creates a keys view from [entries].
     * All subsequent accesses just return the created instance.
     */
    override val keys: Set<K> get() {
        if (_keys == null) {
            _keys = object : AbstractSet<K>() {
                override operator fun contains(element: K): Boolean = containsKey(element)
                override operator fun iterator(): Iterator<K> {
                    val entryIterator = entries.iterator()
                    return object : Iterator<K> {
                        override fun hasNext(): Boolean = entryIterator.hasNext()
                        override fun next(): K = entryIterator.next().key
                    }
                }
                override val size: Int get() = this@AbstractMap.size
            }
            return _keys!!
        }
    }
    @kotlin.jvm.Volatile
    private var _keys: Set<K>? = null
    override fun toString(): String = entries.joinToString(", ", "\n", "\n") { toString(it) }
    private fun toString(entry: Map.Entry<K, V>): String = toString(entry.key) + "=" + toString(entry.value)
    private fun toString(o: Any?): String = if (o === this) "(this Map)" else o.toString()
    /**
     * Returns a read-only [Collection] of all values in this map.
     * Accessing this property first time creates a values view from [entries].
     * All subsequent accesses just return the created instance.
     */
    override val values: Collection<V> get() {
        if (_values == null) {
            _values = object : AbstractCollection<V>() {
                override operator fun contains(element: @UnsafeVariance V): Boolean = containsValue(element)
                override operator fun iterator(): Iterator<V> {
                    val entryIterator = entries.iterator()
                    return object : Iterator<V> {
                        override fun hasNext(): Boolean = entryIterator.hasNext()
                        override fun next(): V = entryIterator.next().value
                    }
                }
                override val size: Int get() = this@AbstractMap.size
            }
            return _values!!
        }
    }
    @kotlin.jvm.Volatile
    private var _values: Collection<V>? = null
    private fun implFindEntry(key: K): Map.Entry<K, V>? = entries.firstOrNull { it.key == key }
    internal companion object {
        internal fun entryHashCode(e: Map.Entry<*, *>): Int = with(e) { (key?.hashCode() ?: 0) xor (value?.hashCode() ?: 0) }
        internal fun entryToString(e: Map.Entry<*, *>): String = with(e) { "$key=$value" }
        internal fun entryEquals(e: Map.Entry<*, *>, other: Any?): Boolean {
            if (other !is Map.Entry<*, *>) return false
            return e.key == other.key && e.value == other.value
        }
    }
    /**
     * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.
     * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.
     */
    package kotlin.collections
    /**
     * Provides a skeletal implementation of the read-only [Set] interface.
     * This class is intended to help implementing read-only sets so it doesn't support concurrent modification tracking.
     * @param E the type of elements contained in the set. The set is covariant on its element type.
     */
    @SinceKotlin("1.1")
    public abstract class AbstractSet<out E> protected constructor() : AbstractCollection<E>(), Set<E> {
        /**
         * Compares this set with other set instance with the unordered structural equality.
         * @return true, if [other] instance is a [Set] of the same size, all elements of which are contained in this set.
         */
        override fun equals(other: Any?): Boolean {
            if (other === this) return true
            if (other !is Set<*>) return false
            return setEquals(this, other)
        }
        /**
         * Returns the hash code value for this set.
         */
        override fun hashCode(): Int = unorderedHashCode(this)
        internal companion object {
            internal fun unorderedHashCode(c: Collection<*>): Int {
                var hashCode = 0
                for (element in c) {
                    hashCode += (element?.hashCode() ?: 0)
                }
                return hashCode
            }
            internal fun setEquals(c: Set<*>, other: Set<*>): Boolean {
                if

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*\/r\n\r\n@file:kotlin.jvm.JvmMultifileClass\r\n@file:kotlin.jvm.JvmName("MapsKt")\r\n\r\npackage
kotlin.collections\r\n\r\n/**\r\n * Returns the value for the given key, or the implicit default value for this map.\r\n *
By default no implicit value is provided for maps and a [NoSuchElementException] is thrown.\r\n * To create a map
with implicit default value use [withDefault] method.\r\n * \r\n * @throws NoSuchElementException when the map
doesn't contain a value for the specified key and no implicit default was provided for that map.\r\n
*\/r\n@kotlin.jvm.JvmName("getOrNullImplicitDefaultNullable")\r\n@PublishedApi\r\n\r\ninternal fun <K, V> Map<K,
V>.getOrNullImplicitDefault(key: K): V {\r\n    if (this is MapWithDefault)\r\n        return
this.getOrNullImplicitDefault(key)\r\n\r\n    return getOrNullNullable(key, { throw NoSuchElementException("Key
$key is missing in the map.") })\r\n}\r\n\r\n/**\r\n * Returns a wrapper of this read-only map, having the implicit
default value provided with the specified function [defaultValue].\r\n * \r\n * This implicit default value is used when
the original map doesn't contain a value for the key specified\r\n * and a value is obtained with [Map.getValue]
function, for example when properties are delegated to the map.\r\n * \r\n * When this map already has an implicit
default value provided with a former call to [withDefault], it is being replaced by this call.\r\n * \r\n\r\npublic fun <K,
V> Map<K, V>.withDefault(defaultValue: (key: K) -> V): Map<K, V> =\r\n    when (this) {\r\n        is
MapWithDefault -> this.map.withDefault(defaultValue)\r\n        else -> MapWithDefaultImpl(this, defaultValue)\r\n    }\r\n\r\n\r\n/**\r\n * Returns a wrapper of this mutable map, having the implicit default value provided with the
specified function [defaultValue].\r\n * \r\n * This implicit default value is used when the original map doesn't
contain a value for the key specified\r\n * and a value is obtained with [Map.getValue] function, for example when
properties are delegated to the map.\r\n * \r\n * When this map already has an implicit default value provided with a
former call to [withDefault], it is being replaced by this call.\r\n
*\/r\n@kotlin.jvm.JvmName("withDefaultMutable")\r\n\r\npublic fun <K, V> MutableMap<K,
V>.withDefault(defaultValue: (key: K) -> V): MutableMap<K, V> =\r\n    when (this) {\r\n        is
MutableMapWithDefault -> this.map.withDefault(defaultValue)\r\n        else -> MutableMapWithDefaultImpl(this,
defaultValue)\r\n    }\r\n\r\n\r\nprivate interface MapWithDefault<K, out V> : Map<K, V> {\r\n    public val map:
Map<K, V>\r\n    public fun getOrNullImplicitDefault(key: K): V\r\n}\r\n\r\nprivate interface
MutableMapWithDefault<K, V> : MutableMap<K, V>, MapWithDefault<K, V> {\r\n    public override val map:
MutableMap<K, V>\r\n}\r\n\r\n\r\nprivate class MapWithDefaultImpl<K, out V>(public override val map: Map<K,
V>, private val default: (key: K) -> V) : MapWithDefault<K, V> {\r\n    override fun equals(other: Any?): Boolean
= map.equals(other)\r\n    override fun hashCode(): Int = map.hashCode()\r\n    override fun toString(): String =
map.toString()\r\n    override val size: Int get() = map.size\r\n    override fun isEmpty(): Boolean =
map.isEmpty()\r\n    override fun containsKey(key: K): Boolean = map.containsKey(key)\r\n    override fun
containsValue(value: @UnsafeVariance V): Boolean = map.containsValue(value)\r\n    override fun get(key: K): V?
= map.get(key)\r\n    override val keys: Set<K> get() = map.keys\r\n    override val values: Collection<V> get() =
map.values\r\n    override val entries: Set<Map.Entry<K, V>> get() = map.entries\r\n\r\n    override fun
getOrNullImplicitDefault(key: K): V = map.getOrNullNullable(key, { default(key) })\r\n}\r\n\r\n\r\nprivate class
MutableMapWithDefaultImpl<K, V>(public override val map: MutableMap<K, V>, private val default: (key: K) ->
V) : MutableMapWithDefault<K, V> {\r\n    override fun equals(other: Any?): Boolean = map.equals(other)\r\n
    override fun hashCode(): Int = map.hashCode()\r\n    override fun toString(): String = map.toString()\r\n
    override val size: Int get() = map.size\r\n    override fun isEmpty(): Boolean = map.isEmpty()\r\n
    override fun containsKey(key: K): Boolean = map.containsKey(key)\r\n    override fun containsValue(value: @UnsafeVariance
V): Boolean = map.containsValue(value)\r\n    override fun get(key: K): V? = map.get(key)\r\n    override val keys:
MutableSet<K> get() = map.keys\r\n    override val values: MutableCollection<V> get() = map.values\r\n
    override val entries: MutableSet<MutableMap.MutableEntry<K, V>> get() = map.entries\r\n\r\n    override fun put(key: K,
value: V): V? = map.put(key, value)\r\n    override fun remove(key: K): V? = map.remove(key)\r\n    override fun
putAll(from: Map<out K, V>) = map.putAll(from)\r\n    override fun clear() = map.clear()\r\n\r\n    override fun
getOrNullImplicitDefault(key: K): V = map.getOrNullNullable(key, { default(key) })\r\n}\r\n\r\n\r\n"/**\r\n * Copyright
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governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n

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*@\r\n\r\n@file:kotlin.jvm.JvmMultifileClass\r\n@file:kotlin.jvm.JvmName("\CollectionsKt")\r\n\r\npackage
kotlin.collections\r\n\r\nimport kotlin.random.Random\r\n\r\n/**\r\n * Removes a single instance of the specified
element from this\r\n * collection, if it is present.\r\n * \r\n * Allows to overcome type-safety restriction of `remove`
that requires to pass an element of type `E`.\r\n * \r\n * @return `true` if the element has been successfully removed;
`false` if it was not present in the collection.\r\n */\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
<@kotlin.internal.OnlyInputTypes T> MutableCollection<out T>.remove(element: T): Boolean =\r\n
@Suppress("\UNCHECKED_CAST") (this as MutableCollection<T>).remove(element)\r\n\r\n/**\r\n * Removes
all of this collection's elements that are also contained in the specified collection.\r\n\r\n * Allows to overcome type-
safety restriction of `removeAll` that requires to pass a collection of type `Collection<E>`.\r\n * \r\n * @return `true`
if any of the specified elements was removed from the collection, `false` if the collection was not modified.\r\n
*/\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <@kotlin.internal.OnlyInputTypes T> MutableCollection<out
T>.removeAll(elements: Collection<T>): Boolean =\r\n
@Suppress("\UNCHECKED_CAST") (this as
MutableCollection<T>).removeAll(elements)\r\n\r\n/**\r\n * Retains only the elements in this collection that are
contained in the specified collection.\r\n * \r\n * Allows to overcome type-safety restriction of `retainAll` that
requires to pass a collection of type `Collection<E>`.\r\n * \r\n * @return `true` if any element was removed from the
collection, `false` if the collection was not modified.\r\n */\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
<@kotlin.internal.OnlyInputTypes T> MutableCollection<out T>.retainAll(elements: Collection<T>): Boolean
=\r\n
@Suppress("\UNCHECKED_CAST") (this as MutableCollection<T>).retainAll(elements)\r\n\r\n/**\r\n * Removes the element at the specified [index] from this list.\r\n * In Kotlin one should use the
[MutableList.removeAt] function instead.\r\n */\r\n@Deprecated("\Use removeAt(index) instead.",
ReplaceWith("\removeAt(index)"), level = DeprecationLevel.ERROR)\r\n@kotlin.internal.InlineOnly\r\npublic
inline fun <T> MutableList<T>.remove(index: Int): T = removeAt(index)\r\n\r\n/**\r\n * Adds the specified
[element] to this mutable collection.\r\n */\r\n@kotlin.internal.InlineOnly\r\npublic inline operator fun <T>
MutableCollection<in T>.plusAssign(element: T) {\r\n
this.add(element)\r\n}\r\n\r\n/**\r\n * Adds all elements of
the given [elements] collection to this mutable collection.\r\n */\r\n@kotlin.internal.InlineOnly\r\npublic inline
operator fun <T> MutableCollection<in T>.plusAssign(elements: Iterable<T>) {\r\n
this.addAll(elements)\r\n}\r\n\r\n/**\r\n * Adds all elements of the given [elements] array to this mutable
collection.\r\n */\r\n@kotlin.internal.InlineOnly\r\npublic inline operator fun <T> MutableCollection<in
T>.plusAssign(elements: Array<T>) {\r\n
this.addAll(elements)\r\n}\r\n\r\n/**\r\n * Adds all elements of the
given [elements] sequence to this mutable collection.\r\n */\r\n@kotlin.internal.InlineOnly\r\npublic inline operator
fun <T> MutableCollection<in T>.plusAssign(elements: Sequence<T>) {\r\n
this.addAll(elements)\r\n}\r\n\r\n/**\r\n * Removes a single instance of the specified [element] from this mutable
collection.\r\n */\r\n@kotlin.internal.InlineOnly\r\npublic inline operator fun <T> MutableCollection<in
T>.minusAssign(element: T) {\r\n
this.remove(element)\r\n}\r\n\r\n/**\r\n * Removes all elements contained in
the given [elements] collection from this mutable collection.\r\n */\r\n@kotlin.internal.InlineOnly\r\npublic inline
operator fun <T> MutableCollection<in T>.minusAssign(elements: Iterable<T>) {\r\n
this.removeAll(elements)\r\n}\r\n\r\n/**\r\n * Removes all elements contained in the given [elements] array from
this mutable collection.\r\n */\r\n@kotlin.internal.InlineOnly\r\npublic inline operator fun <T>
MutableCollection<in T>.minusAssign(elements: Array<T>) {\r\n
this.removeAll(elements)\r\n}\r\n\r\n/**\r\n * Removes all elements contained in the given [elements] sequence from this mutable collection.\r\n
*/\r\n@kotlin.internal.InlineOnly\r\npublic inline operator fun <T> MutableCollection<in
T>.minusAssign(elements: Sequence<T>) {\r\n
this.removeAll(elements)\r\n}\r\n\r\n/**\r\n * Adds all elements
of the given [elements] collection to this [MutableCollection].\r\n */\r\npublic fun <T> MutableCollection<in
T>.addAll(elements: Iterable<T>): Boolean {\r\n
when (elements) {\r\n
is Collection -> return
addAll(elements)\r\n
else -> {\r\n
var result: Boolean = false\r\n
for (item in elements)\r\n
if (add(item)) result = true\r\n
return result\r\n
}\r\n
}\r\n}\r\n\r\n/**\r\n * Adds all elements of the
given [elements] sequence to this [MutableCollection].\r\n */\r\npublic fun <T> MutableCollection<in
T>.addAll(elements: Sequence<T>): Boolean {\r\n
var result: Boolean = false\r\n
for (item in elements) {\r\n

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if (add(item)) result = true\r\n } \r\n return result\r\n}\r\n\r\n/**\r\n * Adds all elements of the given [elements]
array to this [MutableCollection].\r\n */\r\npublic fun <T> MutableCollection<in T>.addAll(elements: Array<out
T>): Boolean {\r\n return addAll(elements.asList())\r\n}\r\n\r\n/**\r\n * Removes all elements from this
[MutableIterable] that match the given [predicate].\r\n */\r\npublic fun <T>
MutableIterable<T>.removeAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, true)\r\n\r\n/**\r\n *
Retains only elements of this [MutableIterable] that match the given [predicate].\r\n */\r\npublic fun <T>
MutableIterable<T>.retainAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate, false)\r\n\r\nprivate fun
<T> MutableIterable<T>.filterInPlace(predicate: (T) -> Boolean, predicateResultToRemove: Boolean): Boolean
{\r\n var result = false\r\n with(iterator()) {\r\n while (hasNext())\r\n if (predicate(next()) ==
predicateResultToRemove) {\r\n remove()\r\n result = true\r\n }\r\n }\r\n return
result\r\n}\r\n\r\n/**\r\n * Removes all elements from this [MutableList] that match the given [predicate].\r\n
*/\r\npublic fun <T> MutableList<T>.removeAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate,
true)\r\n\r\n/**\r\n * Retains only elements of this [MutableList] that match the given [predicate].\r\n */\r\npublic
fun <T> MutableList<T>.retainAll(predicate: (T) -> Boolean): Boolean = filterInPlace(predicate,
false)\r\n\r\nprivate fun <T> MutableList<T>.filterInPlace(predicate: (T) -> Boolean, predicateResultToRemove:
Boolean): Boolean {\r\n if (this !is RandomAccess)\r\n return (this as
MutableIterable<T>).filterInPlace(predicate, predicateResultToRemove)\r\n\r\n var writeIndex: Int = 0\r\n for
(readIndex in 0..lastIndex) {\r\n val element = this[readIndex]\r\n if (predicate(element) ==
predicateResultToRemove)\r\n continue\r\n\r\n if (writeIndex != readIndex)\r\n this[writeIndex] =
element\r\n\r\n writeIndex++\r\n }\r\n if (writeIndex < size) {\r\n for (removeIndex in lastIndex
downTo writeIndex)\r\n removeAt(removeIndex)\r\n\r\n return true\r\n } else {\r\n return false\r\n
}\r\n}\r\n\r\n/**\r\n * Removes all elements from this [MutableCollection] that are also contained in the given
[elements] collection.\r\n */\r\npublic fun <T> MutableCollection<in T>.removeAll(elements: Iterable<T>):
Boolean {\r\n return removeAll(elements.convertToSetForSetOperationWith(this))\r\n}\r\n\r\n/**\r\n * Removes
all elements from this [MutableCollection] that are also contained in the given [elements] sequence.\r\n */\r\npublic
fun <T> MutableCollection<in T>.removeAll(elements: Sequence<T>): Boolean {\r\n val set =
elements.toHashSet()\r\n return set.isNotEmpty() && removeAll(set)\r\n}\r\n\r\n/**\r\n * Removes all elements
from this [MutableCollection] that are also contained in the given [elements] array.\r\n */\r\npublic fun <T>
MutableCollection<in T>.removeAll(elements: Array<out T>): Boolean {\r\n return elements.isNotEmpty() &&
removeAll(elements.toHashSet())\r\n}\r\n\r\n/**\r\n * Retains only elements of this [MutableCollection] that are
contained in the given [elements] collection.\r\n */\r\npublic fun <T> MutableCollection<in T>.retainAll(elements:
Iterable<T>): Boolean {\r\n return retainAll(elements.convertToSetForSetOperationWith(this))\r\n}\r\n\r\n/**\r\n
* Retains only elements of this [MutableCollection] that are contained in the given [elements] array.\r\n */\r\npublic
fun <T> MutableCollection<in T>.retainAll(elements: Array<out T>): Boolean {\r\n if
(elements.isNotEmpty())\r\n return retainAll(elements.toHashSet())\r\n else\r\n return
retainNothing()\r\n}\r\n\r\n/**\r\n * Retains only elements of this [MutableCollection] that are contained in the
given [elements] sequence.\r\n */\r\npublic fun <T> MutableCollection<in T>.retainAll(elements: Sequence<T>):
Boolean {\r\n val set = elements.toHashSet()\r\n if (set.isNotEmpty())\r\n return retainAll(set)\r\n else\r\n
return retainNothing()\r\n}\r\n\r\nprivate fun MutableCollection<*>.retainNothing(): Boolean {\r\n val result =
isEmpty()\r\n clear()\r\n return result\r\n}\r\n\r\n/**\r\n * Randomly shuffles elements in this mutable list
using the specified [random] instance as the source of randomness.\r\n */\r\n * See:
https://en.wikipedia.org/wiki/Fisher%20%80%93Yates\_shuffle#The\_modern\_algorithm\r\n
*/\r\n@SinceKotlin("1.3")\r\npublic fun <T> MutableList<T>.shuffle(random: Random): Unit {\r\n for (i in
lastIndex downTo 1) {\r\n val j = random.nextInt(i + 1)\r\n val copy = this[i]\r\n this[i] = this[j]\r\n
this[j] = copy\r\n }\r\n}\r\n\r\n/**\r\n * Returns a new list with the elements of this list randomly shuffled\r\n *
using the specified [random] instance as the source of randomness.\r\n */\r\n@SinceKotlin("1.3")\r\npublic fun
<T> Iterable<T>.shuffled(random: Random): List<T> = toMutableList().apply { shuffle(random) }\r\n\r\n"/**\r\n
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*\r\n\r\n@file:kotlin.jvm.JvmMultifileClass\r\n@file:kotlin.jvm.JvmName("CollectionsKt")\r\n\r\npackage
kotlin.collections\r\n\r\nprivate open class ReversedListReadOnly< T>(private val delegate: List<T>) :
AbstractList<T>() {\r\n    override val size: Int get() = delegate.size\r\n    override fun get(index: Int): T =
delegate[reverseElementIndex(index)]\r\n}\r\n\r\nprivate class ReversedList<T>(private val delegate:
MutableList<T>) : AbstractMutableList<T>() {\r\n    override val size: Int get() = delegate.size\r\n    override fun
get(index: Int): T = delegate[reverseElementIndex(index)]\r\n\r\n    override fun clear() = delegate.clear()\r\n
    override fun removeAt(index: Int): T = delegate.removeAt(reverseElementIndex(index))\r\n\r\n    override fun
set(index: Int, element: T): T = delegate.set(reverseElementIndex(index), element)\r\n    override fun add(index: Int,
element: T) {\r\n        delegate.add(reversePositionIndex(index), element)\r\n    }\r\n}\r\n\r\nprivate fun
List<*>.reverseElementIndex(index: Int) =\r\n    if (index in 0..lastIndex) lastIndex - index else throw
IndexOutOfBoundsException("Element index $index must be in range [{0..lastIndex}].")\r\n\r\nprivate fun
List<*>.reversePositionIndex(index: Int) =\r\n    if (index in 0..size) size - index else throw
IndexOutOfBoundsException("Position index $index must be in range [{0..size}].")\r\n\r\n\r\n/**\r\n * Returns a
reversed read-only view of the original List.\r\n * All changes made in the original list will be reflected in the
reversed one.\r\n * @sample samples.collections.ReversedViews.asReversedList\r\n */\r\npublic fun <T>
List<T>.asReversed(): List<T> = ReversedListReadOnly(this)\r\n\r\n\r\n/**\r\n * Returns a reversed mutable view of
the original mutable List.\r\n * All changes made in the original list will be reflected in the reversed one and vice
versa.\r\n * @sample samples.collections.ReversedViews.asReversedMutableList\r\n */\r\npublic fun <T>
MutableList<T> = ReversedList(this)\r\n\r\n", "/*\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\r\n
*\r\n\r\n@file:kotlin.jvm.JvmMultifileClass\r\n@file:kotlin.jvm.JvmName("SequencesKt")\r\n@file:UseExperim
ental(ExperimentalTypeInference::class)\r\n\r\npackage kotlin.sequences\r\n\r\nimport kotlin.coroutines.*\r\nimport
kotlin.coroutines.intrinsics.*\r\nimport kotlin.experimental.ExperimentalTypeInference\r\n\r\n\r\n/**\r\n * Builds a
[Sequence] lazily yielding values one by one.\r\n * \r\n * @see kotlin.sequences.generateSequence\r\n * \r\n *
@sample samples.collections.Sequences.Building.buildSequenceYieldAll\r\n * @sample
samples.collections.Sequences.Building.buildFibonacciSequence\r\n */\r\n@SinceKotlin("1.3")\r\npublic fun <T>
sequence(@BuilderInference block: suspend SequenceScope<T>().() -> Unit): Sequence<T> = Sequence {
    iterator(block) }\r\n\r\n@SinceKotlin("1.3")\r\n@Deprecated("Use 'sequence { }' function instead.",
    ReplaceWith("sequence(builderAction)"), level =
    DeprecationLevel.ERROR)\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T>
buildSequence(@BuilderInference noinline builderAction: suspend SequenceScope<T>().() -> Unit): Sequence<T> =
Sequence { iterator(builderAction) }\r\n\r\n\r\n/**\r\n * Builds an [Iterator] lazily yielding values one by one.\r\n * \r\n *
@sample samples.collections.Sequences.Building.buildIterator\r\n * @sample
samples.collections.Iterables.Building.iterable\r\n */\r\n@SinceKotlin("1.3")\r\npublic fun <T>
iterator(@BuilderInference block: suspend SequenceScope<T>().() -> Unit): Iterator<T> {\r\n    val iterator =
SequenceBuilderIterator<T>()\r\n    iterator.nextStep = block.createCoroutineUnintercepted(receiver = iterator,
    completion = iterator)\r\n    return iterator\r\n}\r\n\r\n@SinceKotlin("1.3")\r\n@Deprecated("Use 'iterator { }'
function instead.", ReplaceWith("iterator(builderAction)"), level =
    DeprecationLevel.ERROR)\r\n@kotlin.internal.InlineOnly\r\npublic inline fun <T>
buildIterator(@BuilderInference noinline builderAction: suspend SequenceScope<T>().() -> Unit): Iterator<T> =
iterator(builderAction)\r\n\r\n\r\n/**\r\n * The scope for yielding values of a [Sequence] or an [Iterator], provides
[yield] and [yieldAll] suspension functions.\r\n * \r\n * @see sequence\r\n * @see iterator\r\n * \r\n * @sample
samples.collections.Sequences.Building.buildSequenceYieldAll\r\n * @sample
samples.collections.Sequences.Building.buildFibonacciSequence\r\n
*\r\n@RestrictsSuspension\r\n@SinceKotlin("1.3")\r\npublic abstract class SequenceScope<in T> internal

```

```

constructor() {
    /**
     * Yields a value to the [Iterator] being built and suspends
     * until the next value is requested.
     */
    @sample samples.collections.Sequences.Building.buildSequenceYieldAll
    @sample samples.collections.Sequences.Building.buildFibonacciSequence
}

public abstract suspend fun yield(value: T) {
    /**
     * Yields all values from the `iterator` to the [Iterator] being built
     * and suspends until all these values are iterated and the next one is requested.
     */
    /**
     * The sequence of values returned by the given iterator can be potentially infinite.
     */
    @sample samples.collections.Sequences.Building.buildSequenceYieldAll
    public abstract suspend fun yieldAll(iterator: Iterator<T>) {
        /**
         * Yields a collections of values to the [Iterator] being built
         * and suspends until all these values are iterated and the next one is requested.
         */
        /**
         * @sample samples.collections.Sequences.Building.buildSequenceYieldAll
         */
        public suspend fun yieldAll(elements: Iterable<T>) {
            if (elements is Collection && elements.isEmpty()) return
            return yieldAll(elements.iterator())
        }
    }

    /**
     * Yields potentially infinite sequence of values to the [Iterator] being built
     * and suspends until all these values are iterated and the next one is requested.
     */
    /**
     * The sequence can be potentially infinite.
     */
    /**
     * @sample samples.collections.Sequences.Building.buildSequenceYieldAll
     */
    public suspend fun yieldAll(sequence: Sequence<T>) = yieldAll(sequence.iterator())
}

@Deprecated("Use SequenceScope class instead.", ReplaceWith("SequenceScope<T>"), level = DeprecationLevel.ERROR)
public typealias SequenceBuilder<T> = SequenceScope<T>
private typealias State = Int
private const val State_NotReady: State = 0
private const val State_ManyNotReady: State = 1
private const val State_ManyReady: State = 2
private const val State_Ready: State = 3
private const val State_Done: State = 4
private const val State_Failed: State = 5
private class SequenceBuilderIterator<T> : SequenceScope<T>(), Iterator<T>, Continuation<Unit> {
    private var state = State_NotReady
    private var nextValue: T? = null
    private var nextIterator: Iterator<T>? = null
    var nextStep: Continuation<Unit>? = null
    override fun hasNext(): Boolean {
        while (true) {
            when (state) {
                State_NotReady -> {}
                State_ManyNotReady -> {
                    if (nextIterator!!.hasNext()) {
                        state = State_ManyReady
                        return true
                    } else {
                        nextIterator = null
                    }
                }
                State_Done -> return false
                State_Ready, State_ManyReady -> return true
                else -> throw exceptionalState()
            }
            state = State_Failed
            val step = nextStep!!
            nextStep = null
            step.resume(Unit)
        }
    }
    override fun next(): T {
        when (state) {
            State_NotReady, State_ManyNotReady -> return nextNotReady()
            State_ManyReady -> {
                state = State_ManyNotReady
                return nextIterator!!.next()
            }
            State_Ready -> {
                state = State_NotReady
            }
        }
        @Suppress("UNCHECKED_CAST")
        val result = nextValue as T
        nextValue = null
        return result
    }
    else -> throw exceptionalState()
}

private fun nextNotReady(): T {
    if (!hasNext()) throw NoSuchElementException()
    else return next()
}

private fun exceptionalState(): Throwable = when (state) {
    State_Done -> NoSuchElementException()
    State_Failed -> IllegalStateException("Iterator has failed.")
    else -> IllegalStateException("Unexpected state of the iterator: $state")
}

override suspend fun yield(value: T) {
    nextValue = value
    state = State_Ready
    return suspendCoroutineUninterceptedOrReturn { c -> nextStep = c
        COROUTINE_SUSPENDED
    }
}

override suspend fun yieldAll(iterator: Iterator<T>) {
    if (!iterator.hasNext()) return
    nextIterator = iterator
    state = State_ManyReady
    return suspendCoroutineUninterceptedOrReturn { c -> nextStep = c
        COROUTINE_SUSPENDED
    }
}

// Completion continuation implementation
override fun resumeWith(result: Result<Unit>) {
    result.getOrThrow() // just rethrow exception if it is there
    state = State_Done
}

override val context: CoroutineContext {
    get() = EmptyCoroutineContext
}
}

/**
 * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.
 * Use of this source code is governed by the Apache 2.0 license that can be found in the
 * license/LICENSE.txt file.
 */
package kotlin.collections
internal fun checkWindowSizeStep(size: Int,

```

```

step: Int) {
    require(size > 0 && step > 0)
    if (size != step)
        "Both size $size and step $step
must be greater than zero."
    else
        "size $size must be greater than zero."
}

internal fun <T> Sequence<T>.windowedSequence(size: Int, step: Int, partialWindows: Boolean, reuseBuffer: Boolean):
Sequence<List<T>> {
    checkWindowSizeStep(size, step)
    return Sequence {
        windowedIterator(iterator(),
size, step, partialWindows, reuseBuffer)
}

internal fun <T> windowedIterator(iterator: Iterator<T>, size:
Int, step: Int, partialWindows: Boolean, reuseBuffer: Boolean): Iterator<List<T>> {
    if (!iterator.hasNext())
return EmptyIterator
    return iterator<List<T>> {
        val gap = step - size
        if (gap >= 0) {
            var buffer = ArrayList<T>(size)
            var skip = 0
            for (e in iterator) {
                if (skip > 0) {
                    skip -= 1; continue
                }
                buffer.add(e)
                if (buffer.size == size) {
                    yield(buffer)
                    if (reuseBuffer) buffer.clear() else buffer = ArrayList(size)
                    skip = gap
                }
            }
            if (buffer.isNotEmpty()) {
                if (partialWindows || buffer.size == size) yield(buffer)
            }
        } else {
            val buffer = RingBuffer<T>(size)
            for (e in iterator) {
                buffer.add(e)
                if (buffer.isFull()) {
                    yield(if (reuseBuffer) buffer else
ArrayList(buffer))
                    buffer.removeFirst(step)
                }
            }
            if (partialWindows) {
                while (buffer.size > step) {
                    yield(if (reuseBuffer) buffer else ArrayList(buffer))
                    buffer.removeFirst(step)
                }
                if (buffer.isNotEmpty()) yield(buffer)
            }
        }
    }
}

internal class MovingSubList<out E>(private val list: List<E>) : AbstractList<E>(),
RandomAccess {
    private var fromIndex: Int = 0
    private var _size: Int = 0

    fun move(fromIndex:
Int, toIndex: Int) {
        checkRangeIndexes(fromIndex, toIndex, list.size)
        this.fromIndex = fromIndex
        this._size = toIndex - fromIndex
    }

    override fun get(index: Int): E {
        checkElementIndex(index, _size)
        return list[fromIndex + index]
    }

    override val size: Int
get() = _size

}

/**
 * Provides ring buffer implementation.
 * Buffer overflow is not allowed
so [add] doesn't overwrite tail but raises an exception.
*/
private class RingBuffer<T>(val capacity: Int) :
AbstractList<T>(), RandomAccess {
    init {
        require(capacity >= 0) { "ring buffer capacity should not be
negative but it is $capacity" }
    }

    private val buffer = arrayOfNulls<Any?>(capacity)
    private var
startIndex: Int = 0
    private var size: Int = 0

    private set

    override fun get(index: Int): T {
        checkElementIndex(index, size)
        @Suppress("UNCHECKED_CAST")
        return
buffer[startIndex.forward(index)] as T
    }

    fun isFull() = size == capacity

    override fun
iterator(): Iterator<T> = object : AbstractIterator<T>() {
        private var count = size
        private var index =
startIndex

        override fun computeNext() {
            if (count == 0) {
                done()
            } else {
                @Suppress("UNCHECKED_CAST")
                setNext(buffer[index] as T)
                index =
index.forward(1)
                count--
            }
        }
    }

    @Suppress("UNCHECKED_CAST")
    override fun <T> toArray(array: Array<T>): Array<T> {
        val
result: Array<T?> =
if (array.size < this.size) array.copyOf(this.size) else array as Array<T?>

        val size = this.size
        var widx = 0
        var idx = startIndex

        while (widx < size && idx <
capacity) {
            result[widx] = buffer[idx] as T
            widx++
            idx++
        }

        while (widx < size) {
            result[widx] = buffer[idx] as T
            widx++
            idx++
        }

        if (result.size > this.size) result[this.size] = null

        return result as Array<T>
    }

    override fun toArray(): Array<Any?> {
        return toArray(arrayOfNulls(size))
    }

    /**
 * Add
[element] to the buffer or fail with [IllegalStateException] if no free space available in the buffer
 */
    fun
add(element: T) {
        if (isFull()) {
            throw IllegalStateException("ring buffer is full")
        }
        buffer[startIndex.forward(size)] = element
        size++
    }

    /**
 * Removes [n] first
elements from the buffer or fails with [IllegalArgumentException] if not enough elements in the buffer to
remove
 */
    fun
removeFirst(n: Int) {
        require(n >= 0) { "n shouldn't be negative but it is $n" }

        require(n <= size) { "n shouldn't be greater than the buffer size: n = $n, size = $size" }

        if (n > 0) {
            val start = startIndex
            val end = start.forward(n)

            if (start > end) {
                buffer.fill(null, start, capacity)
                buffer.fill(null, 0, end)
            } else {
                buffer.fill(null,
start, end)
            }

            startIndex = end
            size -= n
        }
    }
}

```

@Suppress("NOTHING\_TO\_INLINE")\r\n private inline fun Int.forward(n: Int): Int = (this + n) % capacity\r\n}\r\n", "/\*\r\n \* Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n \* Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n \*/\r\n\r\npackage kotlin.collections\r\n\r\n// UByteArray

```
=====\r\n@E  
xperimentalUnsignedTypes\r\nprivate fun partition(\r\n array: UByteArray, left: Int, right: Int): Int {\r\n var i = left\r\n var j = right\r\n val pivot = array[(left + right) / 2]\r\n while (i <= j) {\r\n while (array[i] < pivot)\r\n i++\r\n while (array[j] > pivot)\r\n j--\r\n if (i <= j) {\r\n val tmp = array[i]\r\n array[i] = array[j]\r\n array[j] = tmp\r\n i++\r\n j--\r\n }\r\n }\r\n return i\r\n}\r\n\r\n@ExperimentalUnsignedTypes\r\nprivate fun quickSort(\r\n array: UByteArray, left: Int, right: Int) {\r\n val index = partition(array, left, right)\r\n if (left < index - 1)\r\n quickSort(array, left, index - 1)\r\n if (index < right)\r\n quickSort(array, index, right)\r\n}\r\n\r\n// UShortArray
```

```
=====\r\n@E  
xperimentalUnsignedTypes\r\nprivate fun partition(\r\n array: UShortArray, left: Int, right: Int): Int {\r\n var i = left\r\n var j = right\r\n val pivot = array[(left + right) / 2]\r\n while (i <= j) {\r\n while (array[i] < pivot)\r\n i++\r\n while (array[j] > pivot)\r\n j--\r\n if (i <= j) {\r\n val tmp = array[i]\r\n array[i] = array[j]\r\n array[j] = tmp\r\n i++\r\n j--\r\n }\r\n }\r\n return i\r\n}\r\n\r\n@ExperimentalUnsignedTypes\r\nprivate fun quickSort(\r\n array: UShortArray, left: Int, right: Int) {\r\n val index = partition(array, left, right)\r\n if (left < index - 1)\r\n quickSort(array, left, index - 1)\r\n if (index < right)\r\n quickSort(array, index, right)\r\n}\r\n\r\n// UIntArray
```

```
=====\r\n@E  
xperimentalUnsignedTypes\r\nprivate fun partition(\r\n array: UIntArray, left: Int, right: Int): Int {\r\n var i = left\r\n var j = right\r\n val pivot = array[(left + right) / 2]\r\n while (i <= j) {\r\n while (array[i] < pivot)\r\n i++\r\n while (array[j] > pivot)\r\n j--\r\n if (i <= j) {\r\n val tmp = array[i]\r\n array[i] = array[j]\r\n array[j] = tmp\r\n i++\r\n j--\r\n }\r\n }\r\n return i\r\n}\r\n\r\n@ExperimentalUnsignedTypes\r\nprivate fun quickSort(\r\n array: UIntArray, left: Int, right: Int) {\r\n val index = partition(array, left, right)\r\n if (left < index - 1)\r\n quickSort(array, left, index - 1)\r\n if (index < right)\r\n quickSort(array, index, right)\r\n}\r\n\r\n// ULongArray
```

```
=====\r\n@E  
xperimentalUnsignedTypes\r\nprivate fun partition(\r\n array: ULongArray, left: Int, right: Int): Int {\r\n var i = left\r\n var j = right\r\n val pivot = array[(left + right) / 2]\r\n while (i <= j) {\r\n while (array[i] < pivot)\r\n i++\r\n while (array[j] > pivot)\r\n j--\r\n if (i <= j) {\r\n val tmp = array[i]\r\n array[i] = array[j]\r\n array[j] = tmp\r\n i++\r\n j--\r\n }\r\n }\r\n return i\r\n}\r\n\r\n@ExperimentalUnsignedTypes\r\nprivate fun quickSort(\r\n array: ULongArray, left: Int, right: Int) {\r\n val index = partition(array, left, right)\r\n if (left < index - 1)\r\n quickSort(array, left, index - 1)\r\n if (index < right)\r\n quickSort(array, index, right)\r\n}\r\n\r\n\r\n// Interfaces
```

```
=====\r\n/*\r\n
```

```
\r\n * Sorts the given array using qsort algorithm.\r\n */\r\n@ExperimentalUnsignedTypes\r\ninternal fun sortArray(array: UByteArray) = quickSort(array, 0, array.size - 1)\r\n@ExperimentalUnsignedTypes\r\ninternal fun sortArray(array: UShortArray) = quickSort(array, 0, array.size -
```

```
1)\r\n@ExperimentalUnsignedTypes\r\ninternal fun sortArray(array: UIntArray) = quickSort(array, 0, array.size - 1)\r\n@ExperimentalUnsignedTypes\r\ninternal fun sortArray(array: ULongArray) = quickSort(array, 0, array.size
```

```
- 1)", "/*\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n
```

```
*/\r\n\r\npackage kotlin.contracts\r\n\r\nimport kotlin.internal.ContractsDsl\r\nimport
```

```
kotlin.internal.InlineOnly\r\n\r\n/*\r\n * This marker distinguishes the experimental contract declaration API and is used to opt-in for that feature\r\n * when declaring contracts of user functions.\r\n */\r\n * Any usage of a declaration annotated with `@ExperimentalContracts` must be accepted either by\r\n * annotating that usage with the
```



```

samples.contracts.callsInPlaceUnknownContract\r\n*\r\n@ContractsDsl\r\n@ExperimentalContracts\r\n@InlineOn
ly\r\n@SinceKotlin("1.3")\r\n@Suppress("UNUSED_PARAMETER")\r\npublic inline fun contract(builder:
ContractBuilder.() -> Unit) { }", "/*\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.coroutines\r\n\r\n/**\r\n * Marks coroutine context element
that intercepts coroutine continuations.\r\n * The coroutines framework uses [ContinuationInterceptor.Key] to
retrieve the interceptor and\r\n * intercepts all coroutine continuations with [interceptContinuation] invocations.\r\n
*/\r\n@SinceKotlin("1.3")\r\npublic interface ContinuationInterceptor : CoroutineContext.Element {\r\n    /**\r\n
* The key that defines *the* context interceptor.\r\n    */\r\n    companion object Key :
CoroutineContext.Key<ContinuationInterceptor>\r\n\r\n    /**\r\n    * Returns continuation that wraps the original
[continuation], thus intercepting all resumptions.\r\n    * This function is invoked by coroutines framework when
needed and the resulting continuations are\r\n    * cached internally per each instance of the original
[continuation].\r\n    * This function may simply return original [continuation] if it does not want to
intercept this particular continuation.\r\n    */\r\n    * When the original [continuation] completes, coroutine
framework invokes [releaseInterceptedContinuation]\r\n    * with the resulting continuation if it was intercepted,
that is if `interceptContinuation` had previously\r\n    * returned a different continuation instance.\r\n    */\r\n
public fun <T> interceptContinuation(continuation: Continuation<T>): Continuation<T>\r\n\r\n    /**\r\n    *
Invoked for the continuation instance returned by [interceptContinuation] when the original\r\n    * continuation
completes and will not be used anymore. This function is invoked only if [interceptContinuation]\r\n    * had
returned a different continuation instance from the one it was invoked with.\r\n    */\r\n    * Default implementation
does nothing.\r\n    */\r\n    * @param continuation Continuation instance returned by this interceptor's
[interceptContinuation] invocation.\r\n    */\r\n    public fun releaseInterceptedContinuation(continuation:
Continuation<*>) {\r\n        /* do nothing by default */\r\n    }\r\n\r\n    // Performance optimization for a singleton
Key\r\n    public override operator fun <E : CoroutineContext.Element> get(key: CoroutineContext.Key<E>): E?
= \r\n        @Suppress("UNCHECKED_CAST")\r\n        if (key === Key) this as E else null\r\n\r\n    //
Performance optimization to a singleton Key\r\n    public override fun minusKey(key: CoroutineContext.Key<*>):
CoroutineContext = \r\n        if (key === Key) EmptyCoroutineContext else this\r\n\r\n"}\r\n\r\n", "/*\r\n * Copyright 2010-
2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by
the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage
kotlin.coroutines\r\n\r\n/**\r\n * Persistent context for the coroutine. It is an indexed set of [Element] instances.\r\n
* An indexed set is a mix between a set and a map.\r\n * Every element in this set has a unique [Key].\r\n
*/\r\n@SinceKotlin("1.3")\r\npublic interface CoroutineContext {\r\n    /**\r\n    * Returns the element with the
given [key] from this context or `null`.\r\n    */\r\n    public operator fun <E : Element> get(key: Key<E>):
E?\r\n\r\n    /**\r\n    * Accumulates entries of this context starting with [initial] value and applying [operation]\r\n
* from left to right to current accumulator value and each element of this context.\r\n    */\r\n    public fun <R>
fold(initial: R, operation: (R, Element) -> R): R\r\n\r\n    /**\r\n    * Returns a context containing elements from this
context and elements from other [context].\r\n    * The elements from this context with the same key as in the other
one are dropped.\r\n    */\r\n    public operator fun plus(context: CoroutineContext): CoroutineContext = \r\n        if
(context === EmptyCoroutineContext) this else // fast path -- avoid lambda creation\r\n            context.fold(this) {
acc, element ->\r\n                val removed = acc.minusKey(element.key)\r\n                if (removed ===
EmptyCoroutineContext) element else {\r\n                    // make sure interceptor is always last in the context (and
thus is fast to get when present)\r\n                    val interceptor = removed[ContinuationInterceptor]\r\n                    if
(interceptor == null) CombinedContext(removed, element) else {\r\n                        val left =
removed.minusKey(ContinuationInterceptor)\r\n                        if (left === EmptyCoroutineContext)
CombinedContext(element, interceptor) else\r\n                            CombinedContext(CombinedContext(left,
element), interceptor)\r\n                    }\r\n                }\r\n\r\n    /**\r\n    * Returns a context containing
elements from this context, but without an element with\r\n    * the specified [key].\r\n    */\r\n    public fun
minusKey(key: Key<*>): CoroutineContext\r\n\r\n    /**\r\n    * Key for the elements of [CoroutineContext]. [E] is

```

```

a type of element with this key.\r\n    */\r\n    public interface Key<E : Element>\r\n\r\n    /*\r\n    * An element of
the [CoroutineContext]. An element of the coroutine context is a singleton context by itself.\r\n    */\r\n    public
interface Element : CoroutineContext {\r\n    /*\r\n    * A key of this coroutine context element.\r\n    */\r\n
    public val key: Key<*>\r\n\r\n    public override operator fun <E : Element> get(key: Key<E>): E? =\r\n
    @Suppress("UNCHECKED_CAST")\r\n        if (this.key == key) this as E else null\r\n\r\n    public override
fun <R> fold(initial: R, operation: (R, Element) -> R): R =\r\n        operation(initial, this)\r\n\r\n    public
override fun minusKey(key: Key<*>): CoroutineContext =\r\n        if (this.key == key) EmptyCoroutineContext
else this\r\n    }\r\n}\r\n", "/*\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.coroutines\r\n\r\nimport
kotlin.coroutines.CoroutineContext.*\r\nimport kotlin.io.Serializable\r\n\r\n/*\r\n * Base class for
[CoroutineContext.Element] implementations.\r\n */\r\n@SinceKotlin("1.3")\r\npublic abstract class
AbstractCoroutineContextElement(public override val key: Key<*>) : Element\r\n\r\n/*\r\n * An empty coroutine
context.\r\n */\r\n@SinceKotlin("1.3")\r\npublic object EmptyCoroutineContext : CoroutineContext, Serializable
{\r\n    private const val serialVersionUID: Long = 0\r\n    private fun readResolve(): Any =
EmptyCoroutineContext\r\n\r\n    public override fun <E : Element> get(key: Key<E>): E? = null\r\n    public
override fun <R> fold(initial: R, operation: (R, Element) -> R): R = initial\r\n    public override fun plus(context:
CoroutineContext): CoroutineContext = context\r\n    public override fun minusKey(key: Key<*>):
CoroutineContext = this\r\n    public override fun hashCode(): Int = 0\r\n    public override fun toString(): String =
"EmptyCoroutineContext"\r\n}\r\n\r\n//----- internal impl -----\r\n\r\n// this class is not
exposed, but is hidden inside implementations\r\n\r\n// this is a left-biased list, so that `plus` works
naturally\r\n@SinceKotlin("1.3")\r\ninternal class CombinedContext(\r\n    private val left: CoroutineContext,\r\n    private val element: Element\r\n) : CoroutineContext, Serializable {\r\n    override fun <E : Element> get(key:
Key<E>): E? {\r\n        var cur = this\r\n        while (true) {\r\n            cur.element[key]?.let { return it }\r\n
            val next = cur.left\r\n            if (next is CombinedContext) {\r\n                cur = next\r\n            } else {\r\n
                return next[key]\r\n            }\r\n        }\r\n\r\n    public override fun <R> fold(initial: R, operation: (R,
Element) -> R): R =\r\n        operation(left.fold(initial, operation), element)\r\n\r\n    public override fun
minusKey(key: Key<*>): CoroutineContext {\r\n        element[key]?.let { return left }\r\n        val newLeft =
left.minusKey(key)\r\n        return when {\r\n            newLeft === left -> this\r\n            newLeft ===
EmptyCoroutineContext -> element\r\n            else -> CombinedContext(newLeft, element)\r\n        }\r\n    }\r\n\r\n    private fun size(): Int {\r\n        var cur = this\r\n        var size = 2\r\n        while (true) {\r\n            cur = cur.left as?
CombinedContext ?: return size\r\n            size++\r\n        }\r\n    }\r\n\r\n    private fun contains(element: Element):
Boolean =\r\n        get(element.key) == element\r\n\r\n    private fun containsAll(context: CombinedContext):
Boolean {\r\n        var cur = context\r\n        while (true) {\r\n            if (!contains(cur.element)) return false\r\n
            val next = cur.left\r\n            if (next is CombinedContext) {\r\n                cur = next\r\n            } else {\r\n
                return contains(next as Element)\r\n            }\r\n        }\r\n    }\r\n\r\n    override fun equals(other: Any?): Boolean
= \r\n        this === other || other is CombinedContext && other.size() == size() && other.containsAll(this)\r\n\r\n    override fun hashCode(): Int = left.hashCode() + element.hashCode()\r\n\r\n    override fun toString(): String =\r\n
"\[" + fold("\") { acc, element ->\r\n        if (acc.isEmpty()) element.toString() else "$acc, $element"\r\n    }
+ "]" \r\n\r\n    private fun writeReplace(): Any {\r\n        val n = size()\r\n        val elements =
arrayOfNulls<CoroutineContext>(n)\r\n        var index = 0\r\n        fold(Unit) { _, element -> elements[index++] =
element }\r\n        check(index == n)\r\n        @Suppress("UNCHECKED_CAST")\r\n        return
Serialized(elements as Array<CoroutineContext>)\r\n    }\r\n\r\n    private class Serialized(val elements:
Array<CoroutineContext>) : Serializable {\r\n        companion object {\r\n            private const val
serialVersionUID: Long = 0L\r\n        }\r\n\r\n        private fun readResolve(): Any =
elements.fold(EmptyCoroutineContext, CoroutineContext::plus)\r\n    }\r\n}\r\n", "/*\r\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n

```



(this.toInt() or other.toInt()).toShort()\r\n\r\n/\*\* Performs a bitwise XOR operation between the two values.

```
*\r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\npublic inline infix fun Short.xor(other: Short): Short =
(this.toInt() xor other.toInt()).toShort()\r\n\r\n/** Inverts the bits in this value.
```

```
*\r\n@SinceKotlin("1.1")\r\n@kotlin.internal.InlineOnly\r\npublic inline fun Short.inv(): Short =
(this.toInt().inv()).toShort()\r\n\r\n\r\n", /*\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.experimental\r\n\r\n/**\r\n * The experimental marker for type
inference augmenting annotations.\r\n */\r\n * Any usage of a declaration annotated with
`@ExperimentalTypeInference` must be accepted either by\r\n * annotating that usage with the [UseExperimental]
annotation, e.g. `@UseExperimental(ExperimentalTypeInference::class)`,\r\n * or by using the compiler argument `
-Xuse-experimental=kotlin.experimental.ExperimentalTypeInference`. \r\n */\r\n@Experimental(level =
Experimental.Level.ERROR)\r\n@MustBeDocumented\r\n@Retention(AnnotationRetention.BINARY)\r\n@Target
(AnnotationTarget.ANNOTATION_CLASS)\r\n@SinceKotlin("1.3")\r\npublic annotation class
ExperimentalTypeInference\r\n", /*\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.internal\r\n\r\n/**\r\n * Specifies that the corresponding type
should be ignored during type inference.\r\n */\r\n@Target(AnnotationTarget.TYPE)\r\n@Retention(AnnotationRetention.BINARY)\r\ninternal annotation class
NoInfer\r\n\r\n/**\r\n * Specifies that the constraint built for the type during type inference should be an equality
one.\r\n */\r\n@Target(AnnotationTarget.TYPE)\r\n@Retention(AnnotationRetention.BINARY)\r\ninternal
annotation class Exact\r\n\r\n/**\r\n * Specifies that a corresponding member has the lowest priority in overload
resolution.\r\n */\r\n@Target(AnnotationTarget.FUNCTION,
AnnotationTarget.PROPERTY)\r\n@Retention(AnnotationRetention.BINARY)\r\ninternal annotation class
LowPriorityInOverloadResolution\r\n\r\n/**\r\n * Specifies that the corresponding member has the highest priority
in overload resolution. Effectively this means that\r\n * an extension annotated with this annotation will win in
overload resolution over a member with the same signature.\r\n */\r\n@Target(AnnotationTarget.FUNCTION,
AnnotationTarget.PROPERTY)\r\n@Retention(AnnotationRetention.BINARY)\r\ninternal annotation class
HidesMembers\r\n\r\n/**\r\n * The value of this type parameter should be mentioned in input types (argument types,
receiver type or expected type).\r\n */\r\n@Target(AnnotationTarget.TYPE_PARAMETER)\r\n@Retention(AnnotationRetention.BINARY)\r\ninternal
annotation class OnlyInputTypes\r\n\r\n/**\r\n * Specifies that this function should not be called directly without
inlining\r\n */\r\n@Target(AnnotationTarget.FUNCTION, AnnotationTarget.PROPERTY,
AnnotationTarget.PROPERTY_GETTER,
AnnotationTarget.PROPERTY_SETTER)\r\n@Retention(AnnotationRetention.BINARY)\r\ninternal annotation
class InlineOnly\r\n\r\n/**\r\n * Specifies that this declaration can have dynamic receiver type.\r\n */\r\n@Target(AnnotationTarget.FUNCTION,
AnnotationTarget.PROPERTY)\r\n@Retention(AnnotationRetention.BINARY)\r\ninternal annotation class
DynamicExtension\r\n\r\n/**\r\n * The value of this parameter should be a property reference expression
(`this::foo`), referencing a `lateinit` property,\r\n * the backing field of which is accessible at the point where the
corresponding argument is passed.\r\n */\r\n@Target(AnnotationTarget.VALUE_PARAMETER)\r\n@Retention(AnnotationRetention.BINARY)\r\n@Sin
ceKotlin("1.2")\r\ninternal annotation class AccessibleLateinitPropertyLiteral\r\n\r\n/**\r\n * Specifies that this
declaration is only completely supported since the specified version.\r\n */\r\n * The Kotlin compiler of an earlier
version is going to report a diagnostic on usages of this declaration.\r\n * The diagnostic message can be specified
with [message], or via [errorCode] (takes less space, but might not be immediately clear\r\n * to the user). The
diagnostic severity can be specified with [level]: WARNING/ERROR mean that either a warning or an error\r\n * is
going to be reported, HIDDEN means that the declaration is going to be removed from resolution completely.\r\n */\r\n * [versionKind] specifies which version should be compared with the [version] value, when compiling the

```



```

value\r\n } \r\n} \r\n\r\n", "/*\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language
contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.properties\r\n\r\nimport kotlin.reflect.KProperty\r\n\r\n/**\r\n * Implements the core logic of a property delegate for a read/write property that calls callback functions when
changed.\r\n * @param initialValue the initial value of the property.\r\n */\r\n\r\npublic abstract class
ObservableProperty<T>(initialValue: T) : ReadWriteProperty<Any?, T> {\r\n    private var value =
initialValue\r\n\r\n    /**\r\n     * The callback which is called before a change to the property value is attempted.\r\n     * The value of the property hasn't been changed yet, when this callback is invoked.\r\n     * If the callback returns
`true` the value of the property is being set to the new value,\r\n     * and if the callback returns `false` the new value
is discarded and the property remains its old value.\r\n     */\r\n    protected open fun beforeChange(property:
KProperty<*>, oldValue: T, newValue: T): Boolean = true\r\n\r\n    /**\r\n     * The callback which is called after
the change of the property is made. The value of the property\r\n     * has already been changed when this callback is
invoked.\r\n     */\r\n    protected open fun afterChange(property: KProperty<*>, oldValue: T, newValue: T): Unit
{\r\n\r\n    public override fun getValue(thisRef: Any?, property: KProperty<*>): T {\r\n        return value\r\n
}\r\n\r\n    public override fun setValue(thisRef: Any?, property: KProperty<*>, value: T) {\r\n        val oldValue =
this.value\r\n        if (!beforeChange(property, oldValue, value)) {\r\n            return\r\n        }\r\n        this.value =
value\r\n        afterChange(property, oldValue, value)\r\n    }\r\n}\r\n}
/*\r\n * Copyright 2010-2018 JetBrains s.r.o.
and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.random\r\n\r\nimport
kotlin.math.nextDown\r\n\r\n/**\r\n * An abstract class that is implemented by random number generator
algorithms.\r\n */\r\n\r\n * The companion object [Random.Default] is the default instance of [Random].\r\n */\r\n\r\n * To
get a seeded instance of random generator use [Random] function.\r\n */\r\n\r\n * @sample
samples.random.Randoms.defaultRandom\r\n */\r\n\r\n * @SinceKotlin("1.3")\r\n\r\npublic abstract class Random {\r\n\r\n
/**\r\n     * Gets the next random [bitCount] number of bits.\r\n     * Generates an `Int` whose lower
[bitCount] bits are filled with random values and the remaining upper bits are zero.\r\n     */\r\n     * @param
bitCount number of bits to generate, must be in range 0..32, otherwise the behavior is unspecified.\r\n     */\r\n
public abstract fun nextBits(bitCount: Int): Int\r\n\r\n    /**\r\n     * Gets the next random `Int` from the random
number generator.\r\n     * Generates an `Int` random value uniformly distributed between
`Int.MIN_VALUE` and `Int.MAX_VALUE` (inclusive).\r\n     */\r\n     * @param
public open fun nextInt(): Int =
nextInt(32)\r\n\r\n    /**\r\n     * Gets the next random non-negative `Int` from the random number generator less
than the specified [until] bound.\r\n     * Generates an `Int` random value uniformly distributed between `0`
(inclusive) and the specified [until] bound (exclusive).\r\n     * @param until must be positive.\r\n     */\r\n
    * @throws IllegalArgumentException if [until] is negative or zero.\r\n     */\r\n     * @param
public open fun nextInt(until: Int):
Int = nextInt(0, until)\r\n\r\n    /**\r\n     * Gets the next random `Int` from the random number generator in the
specified range.\r\n     * Generates an `Int` random value uniformly distributed between the specified [from]
(inclusive) and [until] (exclusive) bounds.\r\n     * @throws IllegalArgumentException if [from] is greater
than or equal to [until].\r\n     */\r\n     * @param
public open fun nextInt(from: Int, until: Int): Int {\r\n
checkRangeBounds(from, until)\r\n        val n = until - from\r\n        if (n > 0 || n == Int.MIN_VALUE) {\r\n
val rnd = if (n and -n == n) {\r\n            val bitCount = fastLog2(n)\r\n            nextBits(bitCount)\r\n        }
else {\r\n            var v: Int\r\n            do {\r\n                val bits = nextInt().ushr(1)\r\n                v = bits %
n\r\n            } while (bits - v + (n - 1) < 0)\r\n            v\r\n        }\r\n        return from + rnd\r\n    } else
{\r\n        while (true) {\r\n            val rnd = nextInt()\r\n            if (rnd in from until until) return rnd\r\n
}\r\n    }\r\n}\r\n}\r\n}
/**\r\n * Gets the next random `Long` from the random number generator.\r\n */\r\n\r\n * Generates a `Long` random value uniformly distributed between `Long.MIN_VALUE` and
`Long.MAX_VALUE` (inclusive).\r\n */\r\n\r\n * @param
public open fun nextLong(): Long = nextInt().toLong().shl(32) +
nextInt()\r\n\r\n    /**\r\n     * Gets the next random non-negative `Long` from the random number generator less
than the specified [until] bound.\r\n     * Generates a `Long` random value uniformly distributed between `0`
(inclusive) and the specified [until] bound (exclusive).\r\n     * @param until must be positive.\r\n     */\r\n
}

```

```

* @throws IllegalArgumentException if [until] is negative or zero.\r\n
*^\r\n public open fun nextLong(until:
Long): Long = nextLong(0, until)\r\n\r\n /**\r\n
* Gets the next random `Long` from the random number
generator in the specified range.\r\n
*\r\n
* Generates a `Long` random value uniformly distributed between the
specified [from] (inclusive) and [until] (exclusive) bounds.\r\n
*\r\n
* @throws IllegalArgumentException if
[from] is greater than or equal to [until].\r\n
*^\r\n public open fun nextLong(from: Long, until: Long): Long
{\r\n
checkRangeBounds(from, until)\r\n
val n = until - from\r\n
if (n > 0) {\r\n
val rnd: Long\r\n
if (n and -n == n) {\r\n
val nLow = n.toInt()\r\n
val nHigh = (n ushr 32).toInt()\r\n
rnd = when {\r\n
nLow != 0 -> {\r\n
val bitCount = fastLog2(nLow)\r\n
//
toUInt().toLong()\r\n
nextBits(bitCount).toLong() and 0xFFFF_FFFF\r\n
}\r\n
nHigh == 1 ->\r\n
// toUInt().toLong()\r\n
nextInt().toLong() and 0xFFFF_FFFF\r\n
else -> {\r\n
val bitCount = fastLog2(nHigh)\r\n
nextBits(bitCount).toLong().shl(32) + nextInt()\r\n
}\r\n
}\r\n
} else {\r\n
var v:
Long\r\n
do {\r\n
val bits = nextLong().ushr(1)\r\n
v = bits % n\r\n
}
while (bits - v + (n - 1) < 0)\r\n
rnd = v\r\n
}\r\n
return from + rnd\r\n
} else {\r\n
while (true) {\r\n
val rnd = nextLong()\r\n
if (rnd in from until until) return rnd\r\n
}\r\n
}\r\n
}\r\n\r\n\r\n /**\r\n
* Gets the next random [Boolean] value.\r\n
*^\r\n public open fun nextBoolean():
Boolean = nextBits(1) != 0\r\n\r\n /**\r\n
* Gets the next random [Double] value uniformly distributed between
0 (inclusive) and 1 (exclusive).\r\n
*^\r\n public open fun nextDouble(): Double =
doubleFromParts(nextBits(26), nextBits(27))\r\n\r\n /**\r\n
* Gets the next random non-negative `Double` from
the random number generator less than the specified [until] bound.\r\n
*\r\n
* Generates a `Double` random
value uniformly distributed between 0 (inclusive) and [until] (exclusive).\r\n
*\r\n
* @throws
IllegalArgumentException if [until] is negative or zero.\r\n
*^\r\n public open fun nextDouble(until: Double):
Double = nextDouble(0.0, until)\r\n\r\n /**\r\n
* Gets the next random `Double` from the random number
generator in the specified range.\r\n
*\r\n
* Generates a `Double` random value uniformly distributed between
the specified [from] (inclusive) and [until] (exclusive) bounds.\r\n
*\r\n
* [from] and [until] must be finite
otherwise the behavior is unspecified.\r\n
*\r\n
* @throws IllegalArgumentException if [from] is greater than
or equal to [until].\r\n
*^\r\n public open fun nextDouble(from: Double, until: Double): Double {\r\n
checkRangeBounds(from, until)\r\n
val size = until - from\r\n
val r = if (size.isInfinite() && from.isFinite()
&& until.isFinite()) {\r\n
val r1 = nextDouble() * (until / 2 - from / 2)\r\n
from + r1 + r1\r\n
} else
{\r\n
from + nextDouble() * size\r\n
}\r\n
return if (r >= until) until.nextDown() else r\r\n
}\r\n\r\n\r\n /**\r\n
* Gets the next random [Float] value uniformly distributed between 0 (inclusive) and 1 (exclusive).\r\n
*^\r\n public open fun nextFloat(): Float = nextBits(24) / (1 shl 24).toFloat()\r\n\r\n /**\r\n
* Fills a subrange
of the specified byte [array] starting from [fromIndex] inclusive and ending [toIndex] exclusive\r\n
* with random
bytes.\r\n
*\r\n
* @return [array] with the subrange filled with random bytes.\r\n
*^\r\n public open fun
nextBytes(array: ByteArray, fromIndex: Int = 0, toIndex: Int = array.size): ByteArray {\r\n
require(fromIndex in
0..array.size && toIndex in 0..array.size) { "\"fromIndex ($fromIndex) or toIndex ($toIndex) are out of range:
0..${array.size}.\" }\r\n
require(fromIndex <= toIndex) { "\"fromIndex ($fromIndex) must be not greater than
toIndex ($toIndex).\" }\r\n\r\n
val steps = (toIndex - fromIndex) / 4\r\n\r\n
var position = fromIndex\r\n
repeat(steps) {\r\n
val v = nextInt()\r\n
array[position] = v.toByte()\r\n
array[position + 1] =
v.ushr(8).toByte()\r\n
array[position + 2] = v.ushr(16).toByte()\r\n
array[position + 3] =
v.ushr(24).toByte()\r\n
position += 4\r\n
}\r\n\r\n
val remainder = toIndex - position\r\n
val vr =
nextInt(remainder * 8)\r\n
for (i in 0 until remainder) {\r\n
array[position + i] = vr.ushr(i *
8).toByte()\r\n
}\r\n\r\n
return array\r\n
}\r\n\r\n\r\n /**\r\n
* Fills the specified byte [array] with random
bytes and returns it.\r\n
*\r\n
* @return [array] filled with random bytes.\r\n
*^\r\n public open fun
nextBytes(array: ByteArray): ByteArray = nextBytes(array, 0, array.size)\r\n\r\n\r\n /**\r\n
* Creates a byte array
of the specified [size], filled with random bytes.\r\n
*^\r\n public open fun nextBytes(size: Int): ByteArray =
nextBytes(ByteArray(size))\r\n\r\n\r\n\r\n /**\r\n
* The default random number generator.\r\n
*\r\n
* On JVM
this generator is thread-safe, its methods can be invoked from multiple threads.\r\n
*\r\n
* @sample

```

```

samples.random.Randoms.defaultRandom\r\n    *\r\n    companion object Default : Random() {\r\n\r\n        private
val defaultRandom: Random = defaultPlatformRandom()\r\n\r\n        override fun nextBits(bitCount: Int): Int =
defaultRandom.nextBits(bitCount)\r\n        override fun nextInt(): Int = defaultRandom.nextInt()\r\n        override
fun nextInt(until: Int): Int = defaultRandom.nextInt(until)\r\n        override fun nextInt(from: Int, until: Int): Int =
defaultRandom.nextInt(from, until)\r\n\r\n        override fun nextLong(): Long = defaultRandom.nextLong()\r\n
override fun nextLong(until: Long): Long = defaultRandom.nextLong(until)\r\n        override fun nextLong(from:
Long, until: Long): Long = defaultRandom.nextLong(from, until)\r\n\r\n        override fun nextBoolean(): Boolean =
defaultRandom.nextBoolean()\r\n\r\n        override fun nextDouble(): Double = defaultRandom.nextDouble()\r\n
override fun nextDouble(until: Double): Double = defaultRandom.nextDouble(until)\r\n        override fun
nextDouble(from: Double, until: Double): Double = defaultRandom.nextDouble(from, until)\r\n\r\n        override
fun nextFloat(): Float = defaultRandom.nextFloat()\r\n\r\n        override fun nextBytes(array: ByteArray): ByteArray
= defaultRandom.nextBytes(array)\r\n        override fun nextBytes(size: Int): ByteArray =
defaultRandom.nextBytes(size)\r\n        override fun nextBytes(array: ByteArray, fromIndex: Int, toIndex: Int):
ByteArray = defaultRandom.nextBytes(array, fromIndex, toIndex)\r\n\r\n        @Deprecated("Use Default
companion object instead", level = DeprecationLevel.HIDDEN)\r\n
@Suppress("DEPRECATION_ERROR")\r\n        @kotlin.jvm.JvmField\r\n        public val Companion:
Random.Companion = Random.Companion\r\n    }\r\n\r\n    @Deprecated("Use Default companion object
instead", level = DeprecationLevel.HIDDEN)\r\n    public object Companion : Random() {\r\n        override fun
nextBits(bitCount: Int): Int = Default.nextBits(bitCount)\r\n    }\r\n}\r\n\r\n**\r\n * Returns a repeatable random
number generator seeded with the given [seed] `Int` value.\r\n * Two generators with the same seed produce
the same sequence of values within the same version of Kotlin runtime.\r\n * *Note:* Future versions of Kotlin
may change the algorithm of this seeded number generator so that it will return\r\n * a sequence of values different
from the current one for a given seed.\r\n * * @sample samples.random.Randoms.seededRandom\r\n
*/\r\n@SinceKotlin("1.3")\r\npublic fun Random(seed: Int): Random = XorWowRandom(seed,
seed.shr(31))\r\n\r\n**\r\n * Returns a repeatable random number generator seeded with the given [seed] `Long`
value.\r\n * Two generators with the same seed produce the same sequence of values within the same version
of Kotlin runtime.\r\n * *Note:* Future versions of Kotlin may change the algorithm of this seeded number
generator so that it will return\r\n * a sequence of values different from the current one for a given seed.\r\n
*/\r\n * @sample samples.random.Randoms.seededRandom\r\n
*/\r\n@SinceKotlin("1.3")\r\npublic fun Random(seed:
Long): Random = XorWowRandom(seed.toInt(), seed.shr(32).toInt())\r\n\r\n\r\n**\r\n * Gets the next random
`Int` from the random number generator in the specified [range].\r\n * Generates an `Int` random value
uniformly distributed in the specified [range]:\r\n * from `range.start` inclusive to `range.endInclusive` inclusive.\r\n
*/\r\n * @throws IllegalArgumentException if [range] is empty.\r\n */\r\n@SinceKotlin("1.3")\r\npublic fun
Random.nextInt(range: IntRange): Int = when {\r\n    range.isEmpty() -> throw IllegalArgumentException("Cannot
get random in empty range: $range")\r\n    range.last < Int.MAX_VALUE -> nextInt(range.first, range.last + 1)\r\n
range.first > Int.MIN_VALUE -> nextInt(range.first - 1, range.last) + 1\r\n    else -> nextInt()\r\n}\r\n\r\n**\r\n *
Gets the next random `Long` from the random number generator in the specified [range].\r\n * Generates a
`Long` random value uniformly distributed in the specified [range]:\r\n * from `range.start` inclusive to
`range.endInclusive` inclusive.\r\n * @throws IllegalArgumentException if [range] is empty.\r\n
*/\r\n */\r\n@SinceKotlin("1.3")\r\npublic fun Random.nextLong(range: LongRange): Long = when {\r\n
range.isEmpty() -> throw IllegalArgumentException("Cannot get random in empty range: $range")\r\n    range.last
< Long.MAX_VALUE -> nextLong(range.start, range.endInclusive + 1)\r\n    range.start > Long.MIN_VALUE ->
nextLong(range.start - 1, range.endInclusive) + 1\r\n    else -> nextLong()\r\n}\r\n\r\n\r\ninternal expect fun
defaultPlatformRandom(): Random\r\ninternal expect fun doubleFromParts(hi26: Int, low27: Int):
Double\r\n\r\n@UseExperimental(ExperimentalStdlibApi::class)\r\ninternal fun fastLog2(value: Int): Int = 31 -
value.countLeadingZeroBits()\r\n\r\n**\r\n * Takes upper [bitCount] bits (0..32) from this number. */\r\ninternal fun
Int.takeUpperBits(bitCount: Int): Int =\r\n    this.ushr(32 - bitCount) and (-bitCount).shr(31)\r\n\r\ninternal fun
checkRangeBounds(from: Int, until: Int) = require(until > from) { boundsErrorMessage(from, until) }\r\ninternal fun

```

```

checkRangeBounds(from: Long, until: Long) = require(until > from) { boundsErrorMessage(from, until)
}
internal fun checkRangeBounds(from: Double, until: Double) = require(until > from) {
boundsErrorMessage(from, until)
}
internal fun boundsErrorMessage(from: Any, until: Any) = "Random
range is empty: [$from, $until]."
/**
 * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming
Language contributors.
 * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.
 */
package kotlin.random
/**
 * Gets the next random [UInt] from
the random number generator.
 */
 * Generates a [UInt] random value uniformly distributed between
[UInt.MIN_VALUE] and [UInt.MAX_VALUE] (inclusive).
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun Random.nextUInt(): UInt =
nextInt().toUInt()
/**
 * Gets the next random [UInt] from the random number generator less than the
specified [until] bound.
 */
 * Generates a [UInt] random value uniformly distributed between `0` (inclusive)
and the specified [until] bound (exclusive).
 */
 * @throws IllegalArgumentException if [until] is zero.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun Random.nextUInt(until: UInt): UInt =
nextUInt(0u, until)
/**
 * Gets the next random [UInt] from the random number generator in the specified
range.
 */
 * Generates a [UInt] random value uniformly distributed between the specified [from] (inclusive)
and [until] (exclusive) bounds.
 */
 * @throws IllegalArgumentException if [from] is greater than or equal to
[until].
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun Random.nextUInt(from:
UInt, until: UInt): UInt {
    checkUIntRangeBounds(from, until)
    val signedFrom = from.toInt() xor
Int.MIN_VALUE
    val signedUntil = until.toInt() xor Int.MIN_VALUE
    val signedResult =
nextInt(signedFrom, signedUntil) xor Int.MIN_VALUE
    return signedResult.toUInt()
}
/**
 * Gets
the next random [UInt] from the random number generator in the specified [range].
 */
 * Generates a [UInt]
random value uniformly distributed in the specified [range]:
 */
 * from `range.start` inclusive to `range.endInclusive` inclusive.
 */
 * @throws IllegalArgumentException if [range] is empty.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun Random.nextUInt(range: UIntRange):
UInt = when {
    range.isEmpty() -> throw IllegalArgumentException("Cannot get random in empty range:
$range")
    range.last < UInt.MAX_VALUE -> nextUInt(range.first, range.last + 1u)
    range.first >
UInt.MIN_VALUE -> nextUInt(range.first - 1u, range.last) + 1u
    else -> nextUInt()
}
/**
 * Gets
the next random [ULong] from the random number generator.
 */
 * Generates a [ULong] random value
uniformly distributed between [ULong.MIN_VALUE] and [ULong.MAX_VALUE] (inclusive).
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun Random.nextULong(): ULong =
nextLong().toULong()
/**
 * Gets the next random [ULong] from the random number generator less than
the specified [until] bound.
 */
 * Generates a [ULong] random value uniformly distributed between `0`
(inclusive) and the specified [until] bound (exclusive).
 */
 * @throws IllegalArgumentException if [until] is
zero.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun Random.nextULong(until:
ULong): ULong = nextULong(0uL, until)
/**
 * Gets the next random [ULong] from the random number
generator in the specified range.
 */
 * Generates a [ULong] random value uniformly distributed between the
specified [from] (inclusive) and [until] (exclusive) bounds.
 */
 * @throws IllegalArgumentException if [from]
is greater than or equal to [until].
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun
Random.nextULong(from: ULong, until: ULong): ULong {
    checkULongRangeBounds(from, until)
    val signedFrom = from.toLong() xor Long.MIN_VALUE
    val signedUntil = until.toLong() xor
Long.MIN_VALUE
    val signedResult = nextLong(signedFrom, signedUntil) xor Long.MIN_VALUE
    return signedResult.toULong()
}
/**
 * Gets the next random [ULong] from the random number
generator in the specified [range].
 */
 * Generates a [ULong] random value uniformly distributed in the
specified [range]:
 */
 * from `range.start` inclusive to `range.endInclusive` inclusive.
 */
 * @throws
IllegalArgumentException if [range] is empty.
 */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public fun Random.nextULong(range:
ULongRange): ULong = when {
    range.isEmpty() -> throw IllegalArgumentException("Cannot get random in
empty range: $range")
    range.last < ULong.MAX_VALUE -> nextULong(range.first, range.last + 1u)
}

```

```

range.first > ULong.MIN_VALUE -> nextULong(range.first - 1u, range.last) + 1u\r\n else ->
nextULong()\r\n}\r\n\r\n**\r\n * Fills the specified unsigned byte [array] with random bytes and returns it.\r\n * \r\n * @return [array] filled with random bytes.\r\n\r\n*\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\npublic fun Random.nextUBytes(array:
UByteArray): UByteArray {\r\n nextBytes(array.asByteArray())\r\n return array\r\n}\r\n\r\n**\r\n * Creates an
unsigned byte array of the specified [size], filled with random bytes.\r\n\r\n*\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\npublic fun Random.nextUBytes(size: Int):
UByteArray = nextBytes(size).asUByteArray()\r\n\r\n**\r\n * Fills a subrange of the specified `UByte` [array]
starting from [fromIndex] inclusive and ending [toIndex] exclusive with random UBytes.\r\n * \r\n * @return [array]
with the subrange filled with random bytes.\r\n\r\n*\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\npublic fun Random.nextUBytes(array:
UByteArray, fromIndex: Int = 0, toIndex: Int = array.size): UByteArray {\r\n nextBytes(array.asByteArray(),
fromIndex, toIndex)\r\n return array\r\n}\r\n\r\n\r\n\r\n@ExperimentalUnsignedTypes\r\ninternal fun
checkUIntRangeBounds(from: UInt, until: UInt) = require(until > from) { boundsErrorMessage(from, until)
}\r\n\r\n@ExperimentalUnsignedTypes\r\ninternal fun checkULongRangeBounds(from: ULong, until: ULong) =
require(until > from) { boundsErrorMessage(from, until) }\r\n", "/*\r\n * Copyright 2010-2018 JetBrains s.r.o. and
Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that
can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.random\r\n\r\n**\r\n * Random number
generator, algorithm "xorwow" from p. 5 of Marsaglia, "Xorshift RNGs".\r\n * \r\n * Cycles after 2^160 * (2^32-
1) repetitions.\r\n * \r\n * See http://www.jstatsoft.org/v08/i14/paper for details.\r\n */\r\n\r\ninternal class
XorWowRandom\r\n\r\ninternal constructor(\r\n private var x: Int,\r\n private var y: Int,\r\n private var z: Int,\r\n
private var w: Int,\r\n private var v: Int,\r\n private var addend: Int\r\n) : Random() {\r\n\r\n internal
constructor(seed1: Int, seed2: Int) : \r\n this(seed1, seed2, 0, 0, seed1.inv(), (seed1 shl 10) xor (seed2 ushr
4))\r\n\r\n init {\r\n require((x or y or z or w or v) != 0) { "Initial state must have at least one non-zero
element." }\r\n\r\n // some trivial seeds can produce several values with zeroes in upper bits, so we discard first
64\r\n repeat(64) { nextInt() }\r\n }\r\n\r\n override fun nextInt(): Int {\r\n var t = x\r\n t = t xor (t
ushr 2)\r\n x = y\r\n y = z\r\n z = w\r\n val v0 = v\r\n w = v0\r\n t = (t xor (t shl 1)) xor v0
xor (v0 shl 4)\r\n v = t\r\n addend += 362437\r\n return t + addend\r\n }\r\n\r\n override fun
nextBits(bitCount: Int): Int =\r\n nextInt().takeUpperBits(bitCount)\r\n}\r\n", "/*\r\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n\r\n\r\n*\r\n@file:kotlin.jvm.JvmMultifileClass\r\n@file:kotlin.jvm.JvmName("RangesKt")\r\n\r\npackage
kotlin.ranges\r\n\r\n**\r\n * Represents a range of floating point numbers.\r\n * Extends [ClosedRange] interface
providing custom operation [lessThanOrEquals] for comparing values of range domain type.\r\n * \r\n * This
interface is implemented by floating point ranges returned by [Float.rangeTo] and [Double.rangeTo] operators to\r\n
* achieve IEEE-754 comparison order instead of total order of floating point numbers.\r\n\r\n*\r\n@SinceKotlin("1.1")\r\npublic interface ClosedFloatingPointRange<T> : Comparable<T>> :
ClosedRange<T> {\r\n override fun contains(value: T): Boolean = lessThanOrEquals(start, value) &&
lessThanOrEquals(value, endInclusive)\r\n override fun isEmpty(): Boolean = !lessThanOrEquals(start,
endInclusive)\r\n\r\n /**\r\n * Compares two values of range domain type and returns true if first is less than or
equal to second.\r\n */\r\n fun lessThanOrEquals(a: T, b: T): Boolean\r\n}\r\n\r\n**\r\n * Represents a range of
[Comparable] values.\r\n */\r\nprivate open class ComparableRange<T> : Comparable<T>>(\r\n override val start:
T,\r\n override val endInclusive: T\r\n) : ClosedRange<T> {\r\n\r\n override fun equals(other: Any?): Boolean
{\r\n return other is ComparableRange<*> && (isEmpty() && other.isEmpty() ||\r\n start ==
other.start && endInclusive == other.endInclusive)\r\n }\r\n\r\n override fun hashCode(): Int {\r\n return if
(isEmpty()) -1 else 31 * start.hashCode() + endInclusive.hashCode()\r\n }\r\n\r\n override fun toString(): String
= "$start..$endInclusive"\r\n}\r\n\r\n**\r\n * A closed range of values of type `Double`.\r\n * \r\n * Numbers are
compared with the ends of this range according to IEEE-754.\r\n */\r\nprivate class ClosedDoubleRange(\r\n start:

```



```

*\r\n * Doesn't affect a line if it doesn't contain [marginPrefix] except the first and the last blank lines.\r\n *
Doesn't preserve the original line endings.\r\n *
@param marginPrefix non-blank string, which is used as a
margin delimiter. Default is `|` (pipe character).\r\n *
@sample samples.text.Strings.trimMargin\r\n *
@see trimIndent\r\n *
@see kotlin.text.isWhitespace\r\n */
public fun String.trimMargin(marginPrefix: String = "|"):
String = replaceIndentByMargin("|", marginPrefix)\r\n\r\n
*\r\n * Detects indent by [marginPrefix] as it does
[trimMargin] and replace it with [newIndent].\r\n *
@param marginPrefix non-blank string, which is used as a
margin delimiter. Default is `|` (pipe character).\r\n *
public fun String.replaceIndentByMargin(newIndent:
String = "|", marginPrefix: String = "|"): String {
    require(marginPrefix.isNotBlank()) { "marginPrefix must
be non-blank string." }
    val lines = lines()\r\n\r\n
    return lines.reindent(length + newIndent.length * lines.size,
getIndentFunction(newIndent), { line ->
    val firstNonWhitespaceIndex = line.indexOfFirst {
!it.isWhitespace() }
    when {
        firstNonWhitespaceIndex == -1 -> null\r\n
        line.startsWith(marginPrefix, firstNonWhitespaceIndex) -> line.substring(firstNonWhitespaceIndex +
marginPrefix.length)\r\n
        else -> null\r\n
    }
})\r\n\r\n
*\r\n * Detects a common minimal indent
of all the input lines, removes it from every line and also removes the first and the last\r\n * lines if they are blank
(notice difference blank vs empty).\r\n *
*\r\n * Note that blank lines do not affect the detected indent level.\r\n *
*\r\n * In case if there are non-blank lines with no leading whitespace characters (no indent at all) then the\r\n * common
indent is 0, and therefore this function doesn't change the indentation.\r\n *
*\r\n * Doesn't preserve the original line
endings.\r\n *
@sample samples.text.Strings.trimIndent\r\n *
@see trimMargin\r\n *
@see
kotlin.text.isBlank\r\n */
public fun String.trimIndent(): String = replaceIndent("|")\r\n\r\n
*\r\n * Detects a
common minimal indent like it does [trimIndent] and replaces it with the specified [newIndent].\r\n *
public fun
String.replaceIndent(newIndent: String = "|"): String {
    val lines = lines()\r\n\r\n
    val minCommonIndent =
lines\r\n
    .filter(String::isNotBlank)\r\n
    .map(String::indentWidth)\r\n
    .min() ?: 0\r\n\r\n
    return
lines.reindent(length + newIndent.length * lines.size, getIndentFunction(newIndent), { line ->
line.drop(minCommonIndent) })\r\n\r\n
*\r\n * Prepends [indent] to every line of the original string.\r\n *
*\r\n * Doesn't preserve the original line endings.\r\n *
public fun String.prependIndent(indent: String = " |"): String
= lineSequence()\r\n
    .map {
        when {
            it.isBlank() -> {
                when {
                    it.length < indent.length -> indent\r\n
                    else -> it\r\n
                }
            }
            else -> indent + it\r\n
        }
    }
    .joinToString("\n")\r\n\r\n
private fun String.indentWidth(): Int =
indexOfFirst { !it.isWhitespace() }.let { if (it == -1) length else it }
private fun getIndentFunction(indent:
String) = when {
    indent.isEmpty() -> { line: String -> line }
    else -> { line: String -> indent + line
}
}
private inline fun List<String>.reindent(\r\n
    resultSizeEstimate: Int, \r\n
    indentAddFunction: (String)
-> String, \r\n
    indentCutFunction: (String) -> String?): String {
    val lastIndex = lastIndex\r\n
    return
mapIndexedNotNull { index, value ->
    if ((index == 0 || index == lastIndex) && value.isBlank())\r\n
    null\r\n
    else\r\n
        indentCutFunction(value)?.let(indentAddFunction) ?: value\r\n
    }
}
.joinTo(StringBuilder(resultSizeEstimate), "\n")\r\n
    .toString()\r\n\r\n
}
\r\n
/* Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.
*\r\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */
package kotlin.text\r\n\r\n
*\r\n * Represents a collection of captured groups in a single match of a regular expression.\r\n *
*\r\n * This collection has
size of `groupCount + 1` where `groupCount` is the count of groups in the regular expression.\r\n *
*\r\n * Groups are
indexed from 1 to `groupCount` and group with the index 0 corresponds to the entire match.\r\n *
*\r\n * An element
of the collection at the particular index can be `null`,\r\n * if the corresponding group in the regular expression is
optional and\r\n * there was no match captured by that group.\r\n */
public interface MatchGroupCollection :
Collection<MatchGroup?> {
    /** Returns a group with the specified [index].\r\n
    *
    * @return An
instance of [MatchGroup] if the group with the specified [index] was matched or `null` otherwise.\r\n
    *
    *
*\r\n *
*\r\n * Groups are indexed from 1 to the count of groups in the regular expression. A group with the index 0\r\n
    *
    * corresponds to the entire match.\r\n
    */
    public operator fun get(index: Int): MatchGroup?
}
\r\n\r\n
*\r\n * Extends [MatchGroupCollection] by introducing a way to get matched groups by name, when regex supports it.\r\n
*\r\n *
*\r\n * @SinceKotlin("1.1")
public interface MatchNamedGroupCollection : MatchGroupCollection {

```

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/**\r\n * Returns a named group with the specified [name].\r\n * @return An instance of [MatchGroup] if the
group with the specified [name] was matched or `null` otherwise.\r\n * @throws IllegalArgumentException if
there is no group with the specified [name] defined in the regex pattern.\r\n * @throws
UnsupportedOperationException if getting named groups isn't supported on the current platform.\r\n */\r\n
public operator fun get(name: String): MatchGroup?\r\n}\r\n\r\n/**\r\n * Represents the results from a single regular
expression match.\r\n */\r\npublic interface MatchResult {\r\n    /** The range of indices in the original string where
match was captured. */\r\n    public val range: IntRange\r\n    /** The substring from the input string captured by this
match. */\r\n    public val value: String\r\n}\r\n\r\n/**\r\n * A collection of groups matched by the regular
expression.\r\n */\r\n * This collection has size of `groupCount + 1` where `groupCount` is the count of groups
in the regular expression.\r\n * Groups are indexed from 1 to `groupCount` and group with the index 0
corresponds to the entire match.\r\n */\r\n    public val groups: MatchGroupCollection\r\n}\r\n\r\n/**\r\n * A list of
matched indexed group values.\r\n */\r\n * This list has size of `groupCount + 1` where `groupCount` is the
count of groups in the regular expression.\r\n * Groups are indexed from 1 to `groupCount` and group with the
index 0 corresponds to the entire match.\r\n */\r\n * If the group in the regular expression is optional and there
were no match captured by that group,\r\n * corresponding item in [groupValues] is an empty string.\r\n */\r\n
* @sample samples.text.Regexps.matchDestructuringToGroupValues\r\n */\r\n    public val groupValues:
List<String>\r\n\r\n    /**\r\n * An instance of [MatchResult.Destructured] wrapper providing components for
destructuring assignment of group values.\r\n */\r\n * component1 corresponds to the value of the first group,
component2 \u2014 of the second, and so on.\r\n */\r\n * @sample
samples.text.Regexps.matchDestructuringToGroupValues\r\n */\r\n    public val destructured: Destructured get()
= Destructured(this)\r\n\r\n    /** Returns a new [MatchResult] with the results for the next match, starting at the
position\r\n * at which the last match ended (at the character after the last matched character).\r\n */\r\n
public fun next(): MatchResult?\r\n\r\n    /**\r\n * Provides components for destructuring assignment of group
values.\r\n */\r\n * [component1] corresponds to the value of the first group, [component2] \u2014 of the
second, and so on.\r\n */\r\n * If the group in the regular expression is optional and there were no match
captured by that group,\r\n * corresponding component value is an empty string.\r\n */\r\n * @sample
samples.text.Regexps.matchDestructuringToGroupValues\r\n */\r\n    public class Destructured internal
constructor(public val match: MatchResult) {\r\n        @kotlin.internal.InlineOnly\r\n        public operator inline fun
component1(): String = match.groupValues[1]\r\n        @kotlin.internal.InlineOnly\r\n        public operator inline
fun component2(): String = match.groupValues[2]\r\n        @kotlin.internal.InlineOnly\r\n        public operator
inline fun component3(): String = match.groupValues[3]\r\n        @kotlin.internal.InlineOnly\r\n        public
operator inline fun component4(): String = match.groupValues[4]\r\n        @kotlin.internal.InlineOnly\r\n
        public operator inline fun component5(): String = match.groupValues[5]\r\n        @kotlin.internal.InlineOnly\r\n
        public operator inline fun component6(): String = match.groupValues[6]\r\n        @kotlin.internal.InlineOnly\r\n
        public operator inline fun component7(): String = match.groupValues[7]\r\n        @kotlin.internal.InlineOnly\r\n
        public operator inline fun component8(): String = match.groupValues[8]\r\n        @kotlin.internal.InlineOnly\r\n
        public operator inline fun component9(): String = match.groupValues[9]\r\n        @kotlin.internal.InlineOnly\r\n
        public operator inline fun component10(): String = match.groupValues[10]\r\n\r\n\r\n        /**\r\n * Returns
destructured group values as a list of strings.\r\n * First value in the returned list corresponds to the value of
the first group, and so on.\r\n */\r\n        * @sample
samples.text.Regexps.matchDestructuringToGroupValues\r\n        */\r\n        public fun toList(): List<String> =
match.groupValues.subList(1, match.groupValues.size)\r\n    }\r\n}\r\n\r\n}"/\r\n\r\n * Copyright 2010-2018 JetBrains s.r.o.
and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license
that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.text\r\n\r\n/**\r\n * Defines names for
Unicode symbols used in proper Typography.\r\n */\r\npublic object Typography {\r\n    /** The character &#x22;
\u2013 quotation mark */\r\n    public const val quote: Char = "\u0022"\r\n    /** The character &#x24; \u2013 dollar
sign */\r\n    public const val dollar: Char = "\u0024"\r\n    /** The character &#x26; \u2013 ampersand */\r\n
    public const val amp: Char = "\u0026"\r\n    /** The character &#x3C; \u2013 less-than sign */\r\n    public const val

```

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less: Char = "\u003C\r\n  /** The character &#x3E; \u2013 greater-than sign */\r\n  public const val greater: Char
= "\u003E\r\n  /** The non-breaking space character */\r\n  public const val nbsp: Char = "\u00A0\r\n  /** The
character &#xD7; */\r\n  public const val times: Char = "\u00D7\r\n  /** The character &#xA2; */\r\n  public
const val cent: Char = "\u00A2\r\n  /** The character &#xA3; */\r\n  public const val pound: Char = "\u00A3\r\n
/** The character &#xA7; */\r\n  public const val section: Char = "\u00A7\r\n  /** The character &#xA9; */\r\n
public const val copyright: Char = "\u00A9\r\n  /** The character &#xAB; */\r\n  public const val
leftGuillemete: Char = "\u00AB\r\n  /** The character &#xBB; */\r\n  public const val rightGuillemete: Char =
"\u00BB\r\n  /** The character &#xAE; */\r\n  public const val registered: Char = "\u00AE\r\n  /** The
character &#xB0; */\r\n  public const val degree: Char = "\u00B0\r\n  /** The character &#xB1; */\r\n  public
const val plusMinus: Char = "\u00B1\r\n  /** The character &#xB6; */\r\n  public const val paragraph: Char =
"\u00B6\r\n  /** The character &#xB7; */\r\n  public const val middleDot: Char = "\u00B7\r\n  /** The
character &#xBD; */\r\n  public const val half: Char = "\u00BD\r\n  /** The character &#x2013; */\r\n  public
const val ndash: Char = "\u2013\r\n  /** The character &#x2014; */\r\n  public const val mdash: Char =
"\u2014\r\n  /** The character &#x2018; */\r\n  public const val leftSingleQuote: Char = "\u2018\r\n  /** The
character &#x2019; */\r\n  public const val rightSingleQuote: Char = "\u2019\r\n  /** The character &#x201A;
*/\r\n  public const val lowSingleQuote: Char = "\u201A\r\n  /** The character &#x201C; */\r\n  public const
val leftDoubleQuote: Char = "\u201C\r\n  /** The character &#x201D; */\r\n  public const val rightDoubleQuote:
Char = "\u201D\r\n  /** The character &#x201E; */\r\n  public const val lowDoubleQuote: Char = "\u201E\r\n
/** The character &#x2020; */\r\n  public const val dagger: Char = "\u2020\r\n  /** The character &#x2021;
*/\r\n  public const val doubleDagger: Char = "\u2021\r\n  /** The character &#x2022; */\r\n  public const val
bullet: Char = "\u2022\r\n  /** The character &#x2026; */\r\n  public const val ellipsis: Char = "\u2026\r\n  /**
The character &#x2032; */\r\n  public const val prime: Char = "\u2032\r\n  /** The character &#x2033; */\r\n
public const val doublePrime: Char = "\u2033\r\n  /** The character &#x20AC; */\r\n  public const val euro:
Char = "\u20AC\r\n  /** The character &#x2122; */\r\n  public const val tm: Char = "\u2122\r\n  /** The
character &#x2248; */\r\n  public const val almostEqual: Char = "\u2248\r\n  /** The character &#x2260; */\r\n
public const val notEqual: Char = "\u2260\r\n  /** The character &#x2264; */\r\n  public const val lessOrEqual:
Char = "\u2264\r\n  /** The character &#x2265; */\r\n  public const val greaterOrEqual: Char =
"\u2265\r\n}"/**\r\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n *
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n
*/\r\n\r\npackage kotlin.time\r\n\r\n/**\r\n * A source of time for measuring time intervals.\r\n */\r\n * The only
operation provided by the clock is [markNow]. It returns a [ClockMark], which can be used to query the elapsed
time later.\r\n */\r\n * @see [measureTime]\r\n * @see [measureTimedValue]\r\n\r\n*/\r\n@SinceKotlin("1.3")\r\n@ExperimentalTime\r\npublic interface Clock {\r\n  /**\r\n   * Marks a time point
on this clock.\r\n   */\r\n   * The returned [ClockMark] instance encapsulates captured time point and allows
querying\r\n   * the duration of time interval [elapsed][ClockMark.elapsedNow] from that point.\r\n   */\r\n
public fun markNow(): ClockMark\r\n}\r\n\r\n/**\r\n * Represents a time point notched on a particular [Clock].
Remains bound to the clock it was taken from\r\n * and allows querying for the duration of time elapsed from that
point (see the function [elapsedNow]).\r\n */\r\n@SinceKotlin("1.3")\r\n@ExperimentalTime\r\npublic abstract
class ClockMark {\r\n  /**\r\n   * Returns the amount of time passed from this clock mark on the clock from
which this mark was taken.\r\n   */\r\n   * Note that the value returned by this function can change on subsequent
invocations.\r\n   */\r\n   public abstract fun elapsedNow(): Duration\r\n\r\n  /**\r\n   * Returns a clock mark on
the same clock that is ahead of this clock mark by the specified [duration].\r\n   */\r\n   * The returned clock mark
is more _late_ when the [duration] is positive, and more _early_ when the [duration] is negative.\r\n
   */\r\n   public open operator fun plus(duration: Duration): ClockMark = AdjustedClockMark(this, duration)\r\n\r\n  /**\r\n
   * Returns a clock mark on the same clock that is behind this clock mark by the specified [duration].\r\n   */\r\n
   * The returned clock mark is more _early_ when the [duration] is positive, and more _late_ when the [duration] is
negative.\r\n   */\r\n   public open operator fun minus(duration: Duration): ClockMark = plus(-duration)\r\n\r\n\r\n  /**\r\n
   * Returns true if this clock mark has passed according to the clock from which this mark was taken.\r\n
   */\r\n

```

```

*\r\n * Note that the value returned by this function can change on subsequent invocations.\r\n * If the clock is
monotonic, it can change only from `false` to `true`, namely, when the clock mark becomes behind the current point
of the clock.\r\n */\r\n public fun hasPassedNow(): Boolean = !elapsedNow().isNegative()\r\n\r\n /**\r\n *
Returns false if this clock mark has not passed according to the clock from which this mark was taken.\r\n */\r\n
*\r\n * Note that the value returned by this function can change on subsequent invocations.\r\n * If the clock is
monotonic, it can change only from `true` to `false`, namely, when the clock mark becomes behind the current point
of the clock.\r\n */\r\n public fun hasNotPassedNow(): Boolean =
elapsedNow().isNegative()\r\n}\r\n\r\n\r\n@ExperimentalTime\r\n@SinceKotlin("1.3")\r\n@kotlin.internal.Inline
Only\r\n@Deprecated("Subtracting one ClockMark from another is not a well defined operation because these
clock marks could have been obtained from the different clocks.", level = DeprecationLevel.ERROR)\r\npublic
inline operator fun ClockMark.minus(other: ClockMark): Duration = throw Error("Operation is
disallowed.")\r\n\r\n@ExperimentalTime\r\n@SinceKotlin("1.3")\r\n@kotlin.internal.InlineOnly\r\n@Deprecated
("Comparing one ClockMark to another is not a well defined operation because these clock marks could have been
obtained from the different clocks.", level = DeprecationLevel.ERROR)\r\npublic inline operator fun
ClockMark.compareTo(other: ClockMark): Int = throw Error("Operation is
disallowed.")\r\n\r\n\r\n@ExperimentalTime\r\nprivate class AdjustedClockMark(val mark: ClockMark, val
adjustment: Duration) : ClockMark() {\r\n    override fun elapsedNow(): Duration = mark.elapsedNow() -
adjustment\r\n\r\n    override fun plus(duration: Duration): ClockMark = AdjustedClockMark(mark, adjustment +
duration)\r\n}\r\n", /**\r\n * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n *
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n
*/\r\n\r\npackage kotlin.time\r\n\r\n/**\r\n * The most precise clock available in the platform.\r\n */\r\n * The clock
returns its readings from a source of monotonic time when it is available in a target platform,\r\n * and resorts to a
non-monotonic time source otherwise.\r\n */\r\n@SinceKotlin("1.3")\r\n@ExperimentalTime\r\npublic expect
object MonoClock : Clock\r\n\r\n/**\r\n * An abstract class used to implement clocks that return their readings as
[Long] values in the specified [unit].\r\n */\r\n * @property unit The unit in which this clock readings are
expressed.\r\n */\r\n@SinceKotlin("1.3")\r\n@ExperimentalTime\r\npublic abstract class
AbstractLongClock(protected val unit: DurationUnit) : Clock {\r\n    /**\r\n    * This protected method should be
overridden to return the current reading of the clock expressed as a [Long] number\r\n    * in the unit specified by
the [unit] property.\r\n    */\r\n    protected abstract fun read(): Long\r\n\r\n    private class LongClockMark(private
val startedAt: Long, private val clock: AbstractLongClock, private val offset: Duration) : ClockMark() {\r\n
        override fun elapsedNow(): Duration = (clock.read() - startedAt).toDuration(clock.unit) - offset\r\n
        override fun plus(duration: Duration): ClockMark = LongClockMark(startedAt, clock, offset + duration)\r\n
    }\r\n\r\n    override fun markNow(): ClockMark = LongClockMark(read(), this, Duration.ZERO)\r\n}\r\n\r\n/**\r\n * An abstract class
used to implement clocks that return their readings as [Double] values in the specified [unit].\r\n */\r\n * @property
unit The unit in which this clock readings are expressed.\r\n
*/\r\n@SinceKotlin("1.3")\r\n@ExperimentalTime\r\npublic abstract class AbstractDoubleClock(protected val
unit: DurationUnit) : Clock {\r\n    /**\r\n    * This protected method should be overridden to return the current
reading of the clock expressed as a [Double] number\r\n    * in the unit specified by the [unit] property.\r\n    */\r\n
protected abstract fun read(): Double\r\n\r\n    private class DoubleClockMark(private val startedAt: Double, private
val clock: AbstractDoubleClock, private val offset: Duration) : ClockMark() {\r\n        override fun elapsedNow():
Duration = (clock.read() - startedAt).toDuration(clock.unit) - offset\r\n        override fun plus(duration: Duration):
ClockMark = DoubleClockMark(startedAt, clock, offset + duration)\r\n    }\r\n\r\n    override fun markNow():
ClockMark = DoubleClockMark(read(), this, Duration.ZERO)\r\n}\r\n\r\n/**\r\n * A clock that has
programmatically updatable readings. It is useful as a predictable source of time in tests.\r\n */\r\n * The current
clock reading value can be advanced by the specified duration amount with the operator [plusAssign]:\r\n */\r\n *
```\r\n * val clock = TestClock()\r\n * clock += 10.seconds\r\n * ```\r\n */\r\n * Implementation note: the current
clock reading value is stored as a [Long] number of nanoseconds,\r\n * thus it's capable to represent a time range of
approximately \u00b11292 years.\r\n * Should the reading value overflow as the result of [plusAssign] operation, an

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[IllegalStateException] is thrown.\r\n *^\r\n@SinceKotlin("1.3")\r\n@ExperimentalTime\r\n\r\npublic class TestClock
: AbstractLongClock(unit = DurationUnit.NANOSECONDS) {\r\n    private var reading: Long = 0L\r\n\r\n    override fun read(): Long = reading\r\n\r\n    /**\r\n     * Advances the current reading value of this clock by the
specified [duration].\r\n     * [duration] value is rounded down towards zero when converting it to a [Long]
number of nanoseconds.\r\n     * For example, if the duration being added is `0.6.nanoseconds`, the clock reading
won't advance because\r\n     * the duration value will be rounded to zero nanoseconds.\r\n     *^\r\n     * @throws
IllegalStateException when the reading value overflows as the result of this operation.\r\n     *^\r\n     public operator
fun plusAssign(duration: Duration) {\r\n        val delta = duration.toDouble(unit)\r\n        val longDelta =
delta.toLong()\r\n        reading = if (longDelta != Long.MIN_VALUE && longDelta != Long.MAX_VALUE) {\r\n
        // when delta fits in long, add it as long\r\n            val newReading = reading + longDelta\r\n            if (reading
xor longDelta >= 0 && reading xor newReading < 0) overflow(duration)\r\n                newReading\r\n            } else {\r\n
        // when delta is greater than long, add it as double\r\n            val newReading = reading + delta\r\n            if
(newReading > Long.MAX_VALUE || newReading < Long.MIN_VALUE) overflow(duration)\r\n
        newReading.toLong()\r\n            }\r\n        }\r\n\r\n        private fun overflow(duration: Duration) {\r\n            throw
IllegalStateException("TestClock will overflow if its reading ${reading}ns is advanced by $duration.")\r\n
        }\r\n\r\n\r\n    public interface WallClock {\r\n        fun currentTimeMilliseconds(): Long\r\n\r\n        companion
object : WallClock, AbstractLongClock(unit = DurationUnit.MILLISECONDS) {\r\n            override fun
currentTimeMilliseconds(): Long = System.currentTimeMillis()\r\n            override fun read(): Long =
System.currentTimeMillis()\r\n            override fun toString(): String = "WallClock(System.currentTimeMillis())"\r\n
        }\r\n    }\r\n\r\n    /**\r\n     * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n     *
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n     *^\r\n\r\n\r\npackage kotlin.time\r\n\r\nimport
kotlin.math.abs\r\n\r\n@UseExperimental(ExperimentalTime::class)\r\n\r\nprivate inline val storageUnit get() =
DurationUnit.NANOSECONDS\r\n\r\n/**\r\n * Represents the amount of time one instant of time is away from
another instant.\r\n * A negative duration is possible in a situation when the second instant is earlier than the
first one.\r\n * An infinite duration value [Duration.INFINITE] can be used to represent infinite timeouts.\r\n *^\r\n *
To construct a duration use either the extension function [toDuration],\r\n * or the extension properties [hours],
[minutes], [seconds], and so on,\r\n * available on [Int], [Long], and [Double] numeric types.\r\n *^\r\n * To get the
value of this duration expressed in a particular [duration units][DurationUnit]\r\n * use the functions [toInt],
[toLong], and [toDouble]\r\n * or the properties [inHours], [inMinutes], [inSeconds], [inNanoseconds], and so
on.\r\n
 *^\r\n
@SinceKotlin("1.3")\r\n@ExperimentalTime\r\n@Suppress("NON_PUBLIC_PRIMARY_CONSTRUCTO
R_OF_INLINE_CLASS")\r\n\r\npublic inline class Duration internal constructor(internal val value: Double) :
Comparable<Duration> {\r\n    // TODO: backend fails on init block, wait for KT-28055\r\n\r\n    // init {\r\n    //
require(!_value.isNaN().not())\r\n    // }\r\n\r\n    companion object {\r\n        /** The duration equal to exactly 0
seconds. *^\r\n        public val ZERO: Duration = Duration(0.0)\r\n\r\n        /** The duration whose value is positive
infinity. It is useful for representing timeouts that should never expire. *^\r\n        public val INFINITE: Duration =
Duration(Double.POSITIVE_INFINITY)\r\n\r\n        /** Converts the given time duration [value] expressed in the
specified [sourceUnit] into the specified [targetUnit]. *^\r\n        public fun convert(value: Double, sourceUnit:
DurationUnit, targetUnit: DurationUnit): Double =\r\n            convertDurationUnit(value, sourceUnit, targetUnit)\r\n
    }\r\n\r\n    // arithmetic operators\r\n\r\n    /** Returns the negative of this value. *^\r\n    public operator fun
unaryMinus(): Duration = Duration(-value)\r\n\r\n    /** Returns a duration whose value is the sum of this and
[other] duration values. *^\r\n    public operator fun plus(other: Duration): Duration = Duration(value +
other.value)\r\n\r\n    /** Returns a duration whose value is the difference between this and [other] duration values.
*^\r\n    public operator fun minus(other: Duration): Duration = Duration(value - other.value)\r\n\r\n    /** Returns a
duration whose value is this duration value multiplied by the given [scale] number. *^\r\n    public operator fun
times(scale: Int): Duration = Duration(value * scale)\r\n\r\n    /** Returns a duration whose value is this duration
value multiplied by the given [scale] number. *^\r\n    public operator fun times(scale: Double): Duration =

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Duration(value * scale)\r\n\r\n /** Returns a duration whose value is this duration value divided by the given
[scale] number. */\r\n public operator fun div(scale: Int): Duration = Duration(value / scale)\r\n\r\n /** Returns a
duration whose value is this duration value divided by the given [scale] number. */\r\n public operator fun
div(scale: Double): Duration = Duration(value / scale)\r\n\r\n /** Returns a number that is the ratio of [this] and
[other] duration values. */\r\n public operator fun div(other: Duration): Double = this.value / other.value\r\n\r\n
/** Returns true, if the duration value is less than zero. */\r\n public fun isNegative(): Boolean = value < 0\r\n\r\n
/** Returns true, if the duration value is greater than zero. */\r\n public fun isPositive(): Boolean = value >
0\r\n\r\n /** Returns true, if the duration value is infinite. */\r\n public fun isInfinite(): Boolean =
value.isInfinite()\r\n\r\n /** Returns true, if the duration value is finite. */\r\n public fun isFinite(): Boolean =
value.isFinite()\r\n\r\n /** Returns the absolute value of this value. The returned value is always non-negative.
*/\r\n public val absoluteValue: Duration get() = if (isNegative()) -this else this\r\n\r\n override fun
compareTo(other: Duration): Int = this.value.compareTo(other.value)\r\n\r\n\r\n // splitting to components\r\n\r\n
/**\r\n * Splits this duration into days, hours, minutes, seconds, and nanoseconds and executes the given [action]
with these components.\r\n * The result of [action] is returned as the result of this function.\r\n * -
`nanoseconds` represents the whole number of nanoseconds in this duration, and its absolute value is less than
1_000_000_000;\r\n * - `seconds` represents the whole number of seconds in this duration, and its absolute value
is less than 60;\r\n * - `minutes` represents the whole number of minutes in this duration, and its absolute value
is less than 60;\r\n * - `hours` represents the whole number of hours in this duration, and its absolute value is less
than 24;\r\n * - `days` represents the whole number of days in this duration.\r\n * If the value doesn't fit in
[Int] range, i.e. it's greater than [Int.MAX_VALUE] or less than [Int.MIN_VALUE],\r\n * it is coerced into that
range.\r\n */\r\n public inline fun <T> toComponents(action: (days: Int, hours: Int, minutes: Int, seconds: Int,
nanoseconds: Int) -> T): T =\r\n    action(inDays.toInt(), hoursComponent, minutesComponent,
secondsComponent, nanosecondsComponent)\r\n\r\n /**\r\n * Splits this duration into hours, minutes, seconds,
and nanoseconds and executes the given [action] with these components.\r\n * The result of [action] is returned as
the result of this function.\r\n * - `nanoseconds` represents the whole number of nanoseconds in this
duration, and its absolute value is less than 1_000_000_000;\r\n * - `seconds` represents the whole number of
seconds in this duration, and its absolute value is less than 60;\r\n * - `minutes` represents the whole number of
minutes in this duration, and its absolute value is less than 60;\r\n * - `hours` represents the whole number of
hours in this duration.\r\n * If the value doesn't fit in [Int] range, i.e. it's greater than [Int.MAX_VALUE] or less
than [Int.MIN_VALUE],\r\n * it is coerced into that range.\r\n */\r\n public inline fun <T>
toComponents(action: (hours: Int, minutes: Int, seconds: Int, nanoseconds: Int) -> T): T =\r\n    action(inHours.toInt(), minutesComponent, secondsComponent, nanosecondsComponent)\r\n\r\n /**\r\n *
Splits this duration into minutes, seconds, and nanoseconds and executes the given [action] with these
components.\r\n * The result of [action] is returned as the result of this function.\r\n * - `nanoseconds`
represents the whole number of nanoseconds in this duration, and its absolute value is less than 1_000_000_000;\r\n
* - `seconds` represents the whole number of seconds in this duration, and its absolute value is less than 60;\r\n
* - `minutes` represents the whole number of minutes in this duration.\r\n * If the value doesn't fit in [Int] range,
i.e. it's greater than [Int.MAX_VALUE] or less than [Int.MIN_VALUE],\r\n * it is coerced into that range.\r\n
*/\r\n public inline fun <T> toComponents(action: (minutes: Int, seconds: Int, nanoseconds: Int) -> T): T =\r\n
    action(inMinutes.toInt(), secondsComponent, nanosecondsComponent)\r\n\r\n /**\r\n * Splits this duration into
seconds, and nanoseconds and executes the given [action] with these components.\r\n * The result of [action] is
returned as the result of this function.\r\n * - `nanoseconds` represents the whole number of nanoseconds
in this duration, and its absolute value is less than 1_000_000_000;\r\n * - `seconds` represents the whole number
of seconds in this duration.\r\n * If the value doesn't fit in [Long] range, i.e. it's greater than
[Long.MAX_VALUE] or less than [Long.MIN_VALUE],\r\n * it is coerced into that range.\r\n */\r\n public
inline fun <T> toComponents(action: (seconds: Long, nanoseconds: Int) -> T): T =\r\n    action(inSeconds.toLong(), nanosecondsComponent)\r\n\r\n @PublishedApi\r\n internal val hoursComponent:
Int get() = (inHours % 24).toInt()\r\n @PublishedApi\r\n internal val minutesComponent: Int get() = (inMinutes

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% 60).toInt()\r\n @PublishedApi\r\n internal val secondsComponent: Int get() = (inSeconds % 60).toInt()\r\n
@PublishedApi\r\n internal val nanosecondsComponent: Int get() = (inNanoseconds % 1e9).toInt()\r\n\r\n //
conversion to units\r\n\r\n /** Returns the value of this duration expressed as a [Double] number of the specified
[unit]. */\r\n public fun toDouble(unit: DurationUnit): Double = convertDurationUnit(value, storageUnit,
unit)\r\n\r\n /**\r\n * Returns the value of this duration expressed as a [Long] number of the specified [unit].\r\n
*\r\n * If the value doesn't fit in the range of [Long] type, it is coerced into that range, see the conversion
[Double.toLong] for details.\r\n */\r\n public fun toLong(unit: DurationUnit): Long =
toDouble(unit).toLong()\r\n\r\n /**\r\n * Returns the value of this duration expressed as an [Int] number of the
specified [unit].\r\n */\r\n * If the value doesn't fit in the range of [Int] type, it is coerced into that range, see the
conversion [Double.toInt] for details.\r\n */\r\n public fun toInt(unit: DurationUnit): Int =
toDouble(unit).toInt()\r\n\r\n /** The value of this duration expressed as a [Double] number of days. */\r\n
public val inDays: Double get() = toDouble(DurationUnit.DAYS)\r\n\r\n /** The value of this duration expressed
as a [Double] number of hours. */\r\n public val inHours: Double get() = toDouble(DurationUnit.HOURS)\r\n\r\n
/** The value of this duration expressed as a [Double] number of minutes. */\r\n public val inMinutes: Double
get() = toDouble(DurationUnit.MINUTES)\r\n\r\n /** The value of this duration expressed as a [Double] number
of seconds. */\r\n public val inSeconds: Double get() = toDouble(DurationUnit.SECONDS)\r\n\r\n /** The value
of this duration expressed as a [Double] number of milliseconds. */\r\n public val inMilliseconds: Double get() =
toDouble(DurationUnit.MILLISECONDS)\r\n\r\n /** The value of this duration expressed as a [Double] number
of microseconds. */\r\n public val inMicroseconds: Double get() =
toDouble(DurationUnit.MICROSECONDS)\r\n\r\n /** The value of this duration expressed as a [Double] number
of nanoseconds. */\r\n public val inNanoseconds: Double get() =
toDouble(DurationUnit.NANOSECONDS)\r\n\r\n // shortcuts\r\n\r\n /**\r\n * Returns the value of this
duration expressed as a [Long] number of nanoseconds.\r\n */\r\n * If the value doesn't fit in the range of [Long]
type, it is coerced into that range, see the conversion [Double.toLong] for details.\r\n */\r\n * The range of
durations that can be expressed as a `Long` number of nanoseconds is approximately \u00c2\u00b1292 years.\r\n
*/\r\n public fun toLongNanoseconds(): Long = toLong(DurationUnit.NANOSECONDS)\r\n\r\n /**\r\n *
Returns the value of this duration expressed as a [Long] number of milliseconds.\r\n */\r\n * The value is
coerced to the range of [Long] type, if it doesn't fit in that range, see the conversion [Double.toLong] for details.\r\n
*/\r\n * The range of durations that can be expressed as a `Long` number of milliseconds is approximately
\u00c2\u00b1292 million years.\r\n */\r\n public fun toLongMilliseconds(): Long =
toLong(DurationUnit.MILLISECONDS)\r\n\r\n /**\r\n * Returns a string representation of this duration value
expressed in the unit which yields the most compact and readable number value.\r\n */\r\n * Special cases:\r\n
* - zero duration is formatted as `0s`\r\n * - the infinite duration is formatted as `Infinity` without unit\r\n
* - very small durations (less than 1e-15 s) are expressed in seconds and formatted in scientific notation\r\n * -
very big durations (more than 1e+7 days) are expressed in days and formatted in scientific notation\r\n */\r\n
* @return the value of duration in the automatically determined unit followed by that unit abbreviated name: `d`, `h`,
`m`, `s`, `ms`, `us`, or `ns`.\r\n */\r\n * @sample samples.time.Durations.toStringDefault\r\n */\r\n override
fun toString(): String = when {\r\n isInfinite() -> value.toString()\r\n value == 0.0 -> `0s`\r\n else ->
{\r\n val absNs = absoluteValue.inNanoseconds\r\n var scientific = false\r\n var maxDecimals =
0\r\n val unit = when {\r\n absNs < 1e-6 -> DurationUnit.SECONDS.also { scientific = true }\r\n
absNs < 1 -> DurationUnit.NANOSECONDS.also { maxDecimals = 7 }\r\n absNs < 1e3 ->
DurationUnit.NANOSECONDS\r\n absNs < 1e6 -> DurationUnit.MICROSECONDS\r\n absNs
< 1e9 -> DurationUnit.MILLISECONDS\r\n absNs < 1000e9 -> DurationUnit.SECONDS\r\n
absNs < 60_000e9 -> DurationUnit.MINUTES\r\n absNs < 3600_000e9 -> DurationUnit.HOURS\r\n
absNs < 86400e9 * 1e7 -> DurationUnit.DAYS\r\n else -> DurationUnit.DAYS.also { scientific = true
}\r\n }\r\n val value = toDouble(unit)\r\n when {\r\n scientific ->
formatScientific(value)\r\n maxDecimals > 0 -> formatUpToDecimals(value, maxDecimals)\r\n
else -> formatToExactDecimals(value, precision(abs(value)))\r\n } + unit.shortName()\r\n }\r\n

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}

private fun precision(value: Double): Int = when {
    value < 1 -> 3
    value < 10 -> 2
    value < 100 -> 1
    else -> 0
}

/**
 * Returns a string representation of this duration value
 * expressed in the given [unit] and formatted with the specified [decimals] number of digits after decimal
 * point.
 * Special cases:
 * - the infinite duration is formatted as `Infinity` without unit
 * @return the value of duration in the specified [unit] followed by that unit abbreviated name: `d`, `h`, `m`,
 * `s`, `ms`, `us`, or `ns`.
 * @throws IllegalArgumentException if [decimals] is less than zero.
 * @sample samples.time.Durations.toStringDecimals
 */
public fun toString(unit: DurationUnit,
decimals: Int = 0): String {
    require(decimals >= 0) { "decimals must be not negative, but was $decimals" }
    if (isInfinite()) return value.toString()
    val number = toDouble()
    return when {
        abs(number) < 1e14 -> formatToExactDecimals(number, decimals.coerceAtMost(12))
        else ->
        formatScientific(number)
    } + unit.shortName()
}

/**
 * Returns an ISO-8601 based
 * string representation of this duration.
 * The returned value is presented in the format `PTm`s.fS`,
 * where `h`, `m`, `s` are the integer components of this duration (see [toComponents]) and `f` is a fractional
 * part of second. Depending on the roundness of the value the fractional part can be formatted with either 0, 3,
 * 6, or 9 decimal digits.
 * If the hours component absolute value of this duration is greater than
 * [Int.MAX_VALUE], it is replaced with [Int.MAX_VALUE], so the infinite duration is formatted as
 * `PT2147483647H`.
 * Negative durations are indicated with the sign `-` in the beginning of the
 * returned string, for example, `-PT5M30S`.
 * @sample samples.time.Durations.toIsoString
 */
public fun toIsoString(): String = buildString {
    if (isNegative()) append('-')
    append("PT")
    absoluteValue.toComponents { hours, minutes, seconds, nanoseconds ->
        val
        hasHours = hours != 0
        val hasSeconds = seconds != 0 || nanoseconds != 0
        val hasMinutes =
        minutes != 0 || (hasSeconds && hasHours)
        if (hasHours) {
            append(hours).append('H')
        }
        if (hasMinutes) {
            append(minutes).append('M')
        }
        if (hasSeconds ||
        (!hasHours && !hasMinutes)) {
            append(seconds)
            if (nanoseconds != 0) {
                append('.')
                val nss = nanoseconds.toString().padStart(9, '0')
                when {
                    nanoseconds % 1_000_000 == 0 -> append(nss, 0, 3)
                    nanoseconds % 1_000 == 0 -> append(nss,
                    0, 6)
                    else -> append(nss)
                }
                append('S')
            }
        }
    }
}

// constructing from number of units
// extension functions
/** Returns a
[Duration] equal to this [Int] number of the specified [unit].
 */
@SinceKotlin("1.3")
@ExperimentalTime
public fun Int.toDuration(unit: DurationUnit): Duration =
toDouble().toDuration(unit)

/** Returns a [Duration] equal to this [Long] number of the specified [unit].
 */
@SinceKotlin("1.3")
@ExperimentalTime
public fun Long.toDuration(unit: DurationUnit): Duration =
toDouble().toDuration(unit)

/** Returns a [Duration] equal to this [Double] number of the specified [unit].
 */
@SinceKotlin("1.3")
@ExperimentalTime
public fun Double.toDuration(unit: DurationUnit): Duration =
Duration(convertDurationUnit(this, unit, storageUnit))

// constructing from number of units
// extension
properties
/** Returns a [Duration] equal to this [Int] number of nanoseconds.
 */
@SinceKotlin("1.3")
@ExperimentalTime
public val Int.nanoseconds get() =
toDuration(DurationUnit.NANOSECONDS)

/** Returns a [Duration] equal to this [Long] number of
nanoseconds.
 */
@SinceKotlin("1.3")
@ExperimentalTime
public val Long.nanoseconds get() =
toDuration(DurationUnit.NANOSECONDS)

/** Returns a [Duration] equal to this [Double] number of
nanoseconds.
 */
@SinceKotlin("1.3")
@ExperimentalTime
public val Double.nanoseconds get() =
toDuration(DurationUnit.NANOSECONDS)

/** Returns a [Duration] equal to this [Int] number of
microseconds.
 */
@SinceKotlin("1.3")
@ExperimentalTime
public val Int.microseconds get() =
toDuration(DurationUnit.MICROSECONDS)

/** Returns a [Duration] equal to this [Long] number of
microseconds.
 */
@SinceKotlin("1.3")
@ExperimentalTime
public val Long.microseconds get() =
toDuration(DurationUnit.MICROSECONDS)

/** Returns a [Duration] equal to this [Double] number of
microseconds.
 */
@SinceKotlin("1.3")
@ExperimentalTime
public val Double.microseconds get() =
toDuration(DurationUnit.MICROSECONDS)

/** Returns a [Duration] equal to this [Int] number of

```

```

milliseconds. */@SinceKotlin("1.3")@ExperimentalTime\npublic val Int.milliseconds get() =
toDuration(DurationUnit.MILLISECONDS)\n\n/** Returns a [Duration] equal to this [Long] number of
milliseconds. */@SinceKotlin("1.3")@ExperimentalTime\npublic val Long.milliseconds get() =
toDuration(DurationUnit.MILLISECONDS)\n\n/** Returns a [Duration] equal to this [Double] number of
milliseconds. */@SinceKotlin("1.3")@ExperimentalTime\npublic val Double.milliseconds get() =
toDuration(DurationUnit.MILLISECONDS)\n\n/** Returns a [Duration] equal to this [Int] number of seconds.
*/@SinceKotlin("1.3")@ExperimentalTime\npublic val Int.seconds get() =
toDuration(DurationUnit.SECONDS)\n\n/** Returns a [Duration] equal to this [Long] number of seconds.
*/@SinceKotlin("1.3")@ExperimentalTime\npublic val Long.seconds get() =
toDuration(DurationUnit.SECONDS)\n\n/** Returns a [Duration] equal to this [Double] number of seconds.
*/@SinceKotlin("1.3")@ExperimentalTime\npublic val Double.seconds get() =
toDuration(DurationUnit.SECONDS)\n\n/** Returns a [Duration] equal to this [Int] number of minutes.
*/@SinceKotlin("1.3")@ExperimentalTime\npublic val Int.minutes get() =
toDuration(DurationUnit.MINUTES)\n\n/** Returns a [Duration] equal to this [Long] number of minutes.
*/@SinceKotlin("1.3")@ExperimentalTime\npublic val Long.minutes get() =
toDuration(DurationUnit.MINUTES)\n\n/** Returns a [Duration] equal to this [Double] number of minutes.
*/@SinceKotlin("1.3")@ExperimentalTime\npublic val Double.minutes get() =
toDuration(DurationUnit.MINUTES)\n\n/** Returns a [Duration] equal to this [Int] number of hours.
*/@SinceKotlin("1.3")@ExperimentalTime\npublic val Int.hours get() =
toDuration(DurationUnit.HOURS)\n\n/** Returns a [Duration] equal to this [Long] number of hours.
*/@SinceKotlin("1.3")@ExperimentalTime\npublic val Long.hours get() =
toDuration(DurationUnit.HOURS)\n\n/** Returns a [Duration] equal to this [Double] number of hours.
*/@SinceKotlin("1.3")@ExperimentalTime\npublic val Double.hours get() =
toDuration(DurationUnit.HOURS)\n\n/** Returns a [Duration] equal to this [Int] number of days.
*/@SinceKotlin("1.3")@ExperimentalTime\npublic val Int.days get() =
toDuration(DurationUnit.DAYS)\n\n/** Returns a [Duration] equal to this [Long] number of days.
*/@SinceKotlin("1.3")@ExperimentalTime\npublic val Long.days get() =
toDuration(DurationUnit.DAYS)\n\n/** Returns a [Duration] equal to this [Double] number of days.
*/@SinceKotlin("1.3")@ExperimentalTime\npublic val Double.days get() =
toDuration(DurationUnit.DAYS)\n\n/** Returns a duration whose value is the specified [duration] value
multiplied by this number.
*/@SinceKotlin("1.3")@ExperimentalTime\n@kotlin.internal.InlineOnly\npublic inline operator fun
Int.times(duration: Duration): Duration = duration * this\n\n/** Returns a duration whose value is the specified
[duration] value multiplied by this number.
*/@SinceKotlin("1.3")@ExperimentalTime\n@kotlin.internal.InlineOnly\npublic inline operator fun
Double.times(duration: Duration): Duration = duration * this\n\n\ninternal expect fun
formatToExactDecimals(value: Double, decimals: Int): String\n\ninternal expect fun formatUpToDecimals(value:
Double, decimals: Int): String\n\ninternal expect fun formatScientific(value: Double): String", /*\n * Copyright
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governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*/@file:kotlin.jvm.JvmMultifileClass()\n@file:kotlin.jvm.JvmName("DurationUnitKt")\n\npackage
kotlin.time\n\n\n/**\n * The list of possible time measurement units, in which a duration can be expressed.\n
*\n * The smallest time unit is [NANOSECONDS] and the largest is [DAYS], which corresponds to exactly 24
[HOURS].\n
*/@SinceKotlin("1.3")@ExperimentalTime\npublic expect enum class DurationUnit {\n
/**\n * Time unit representing one nanosecond, which is 1/1000 of a microsecond.\n
*/\n
NANOSECONDS,\n
/**\n * Time unit representing one microsecond, which is 1/1000 of a millisecond.\n
*/\n
MICROSECONDS,\n
/**\n * Time unit representing one millisecond, which is 1/1000 of a
second.\n
*/\n
MILLISECONDS,\n
/**\n * Time unit representing one second.\n
*/\n
}

```





the lazily initialized value of the current Lazy instance.

```

    * Once the value was initialized it must not change
    during the rest of lifetime of this Lazy instance.
    */
    public val value: T

    /**
     * Returns `true`
     if a value for this Lazy instance has been already initialized, and `false` otherwise.
     */
    * Once this function has
    returned `true` it stays `true` for the rest of lifetime of this Lazy instance.
    */
    public fun isInitialized():
    Boolean

    /**
     * Creates a new instance of the [Lazy] that is already initialized with the specified
    [value].
     */
    * An
    extension to delegate a read-only property of type [T] to an instance of [Lazy].
     */
    * This extension allows to
    use instances of Lazy for property delegation:
     */
    * `val property: String by lazy { initializer }`
     */
    @kotlin.internal.InlineOnly
    public inline operator fun <T> Lazy<T>.getValue(thisRef: Any?, property:
    KProperty<*>): T = value

    /**
     * Specifies how a [Lazy] instance synchronizes initialization among
    multiple threads.
     */
    * Locks are used to ensure
    that only a single thread can initialize the [Lazy] instance.
     */
    SYNCHRONIZED,
     */
    *
    Initializer function can be called several times on concurrent access to uninitialized [Lazy] instance value,
     */
    but only the first returned value will be used as the value of [Lazy] instance.
     */
    PUBLICATION,
     */
    *
    No locks are used to synchronize an access to the [Lazy] instance value; if the instance is accessed from
    multiple threads, its behavior is undefined.
     */
     */
    * This mode should not be used unless the [Lazy] instance
    is guaranteed never to be initialized from more than one thread.
     */
    NONE,
    }

    internal object
    UNINITIALIZED_VALUE
    internal to be called from lazy in JS
    internal class UnsafeLazyImpl<out
    T>(initializer: () -> T) : Lazy<T>, Serializable {
        private var initializer: (() -> T)? = initializer
        private var
        _value: Any? = UNINITIALIZED_VALUE
        override val value: T
        get() {
            if (_value ===
            UNINITIALIZED_VALUE) {
                _value = initializer!()
                initializer = null
            }
            @Suppress("UNCHECKED_CAST")
            return _value as T
        }
        override fun isInitialized():
        Boolean = _value != UNINITIALIZED_VALUE
        override fun toString(): String = if (isInitialized())
        value.toString() else "Lazy value not initialized yet."
        private fun writeReplace(): Any =
        InitializedLazyImpl(value)
    }

    internal class InitializedLazyImpl<out T>(override val value: T) : Lazy<T>,
    Serializable {
        override fun isInitialized(): Boolean = true
        override fun toString(): String =
        value.toString()
    }
}

/*
 * Copyright 2010-2019 JetBrains s.r.o. and Kotlin Programming Language
contributors.
 * Use of this source code is governed by the Apache 2.0 license that can be found in the
license/LICENSE.txt file.
 */
@file: kotlin.jvm.JvmMultifileClass
@file: kotlin.jvm.JvmName("NumbersKt")
package
kotlin

/**
 * Counts the number of set bits in the binary representation of this [Int] number.
 */
@SinceKotlin("1.3")
@ExperimentalStdlibApi
public expect fun Int.countOneBits(): Int

/**
 * Counts the number of consecutive most significant bits that are zero in the binary representation of this [Int]
number.
 */
@SinceKotlin("1.3")
@ExperimentalStdlibApi
public expect fun
Int.countLeadingZeroBits(): Int

/**
 * Counts the number of consecutive least significant bits that are zero
in the binary representation of this [Int] number.
 */
@SinceKotlin("1.3")
@ExperimentalStdlibApi
public expect fun Int.countTrailingZeroBits():
Int

/**
 * Returns a number having a single bit set in the position of the most significant set bit of this [Int]
number,
 * or zero, if this number is zero.
 */
@SinceKotlin("1.3")
@ExperimentalStdlibApi
public
expect fun Int.takeHighestOneBit(): Int

/**
 * Returns a number having a single bit set in the position of
the least significant set bit of this [Int] number,
 * or zero, if this number is zero.
 */
@SinceKotlin("1.3")
@ExperimentalStdlibApi
public expect fun Int.takeLowestOneBit():
Int

/**
 * Rotates the binary representation of this [Int] number left by the specified [bitCount] number of
bits.
 * The most significant bits pushed out from the left side reenter the number as the least significant bits on
the right side.
 * Rotating the number left by a negative bit count is the same as rotating it right by the
negated bit count:
 * number.rotateLeft(-n) == number.rotateRight(n)
 * Rotating by a multiple of
[Int.SIZE_BITS] (32) returns the same number, or more generally
 * number.rotateLeft(n) ==
number.rotateLeft(n % 32)
 */
@SinceKotlin("1.3")
@ExperimentalStdlibApi
public expect fun

```

`Int.rotateLeft(bitCount: Int): Int` Rotates the binary representation of this [Int] number right by the specified [bitCount] number of bits. The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side. Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count: `number.rotateRight(-n) == number.rotateLeft(n)` Rotating by a multiple of [Int.SIZE\_BITS] (32) returns the same number, or more generally `number.rotateRight(n) == number.rotateRight(n % 32)`

`*@SinceKotlin("1.3")@ExperimentalStdlibApi` public expect fun `Int.rotateRight(bitCount: Int): Int` Counts the number of set bits in the binary representation of this [Long] number.

`*@SinceKotlin("1.3")@ExperimentalStdlibApi` public expect fun `Long.countOneBits(): Int` Counts the number of consecutive most significant bits that are zero in the binary representation of this [Long] number.

`*@SinceKotlin("1.3")@ExperimentalStdlibApi` public expect fun `Long.countLeadingZeroBits(): Int` Counts the number of consecutive least significant bits that are zero in the binary representation of this [Long] number.

`*@SinceKotlin("1.3")@ExperimentalStdlibApi` public expect fun `Long.countTrailingZeroBits(): Int` Returns a number having a single bit set in the position of the most significant set bit of this [Long] number, or zero, if this number is zero.

`*@SinceKotlin("1.3")@ExperimentalStdlibApi` public expect fun `Long.takeHighestOneBit(): Long` Returns a number having a single bit set in the position of the least significant set bit of this [Long] number, or zero, if this number is zero.

`*@SinceKotlin("1.3")@ExperimentalStdlibApi` public expect fun `Long.takeLowestOneBit(): Long` Rotates the binary representation of this [Long] number left by the specified [bitCount] number of bits. The most significant bits pushed out from the left side reenter the number as the least significant bits on the right side. Rotating the number left by a negative bit count is the same as rotating it right by the negated bit count: `number.rotateLeft(-n) == number.rotateRight(n)` Rotating by a multiple of [Long.SIZE\_BITS] (64) returns the same number, or more generally `number.rotateLeft(n) == number.rotateLeft(n % 64)`

`*@SinceKotlin("1.3")@ExperimentalStdlibApi` public expect fun `Long.rotateLeft(bitCount: Int): Long` Rotates the binary representation of this [Long] number right by the specified [bitCount] number of bits. The least significant bits pushed out from the right side reenter the number as the most significant bits on the left side. Rotating the number right by a negative bit count is the same as rotating it left by the negated bit count: `number.rotateRight(-n) == number.rotateLeft(n)` Rotating by a multiple of [Long.SIZE\_BITS] (64) returns the same number, or more generally `number.rotateRight(n) == number.rotateRight(n % 64)`

`*@SinceKotlin("1.3")@ExperimentalStdlibApi` public expect fun `Long.rotateRight(bitCount: Int): Long` Counts the number of set bits in the binary representation of this [Byte] number.

`*@SinceKotlin("1.3")@ExperimentalStdlibApi` @kotlin.internal.InlineOnly public inline fun `Byte.countOneBits(): Int` = (toInt() and 0xFF).countOneBits() Counts the number of consecutive most significant bits that are zero in the binary representation of this [Byte] number.

`*@SinceKotlin("1.3")@ExperimentalStdlibApi` @kotlin.internal.InlineOnly public inline fun `Byte.countLeadingZeroBits(): Int` = (toInt() and 0xFF).countLeadingZeroBits() - (Int.SIZE\_BITS - Byte.SIZE\_BITS) Counts the number of consecutive least significant bits that are zero in the binary representation of this [Byte] number.

`*@SinceKotlin("1.3")@ExperimentalStdlibApi` @kotlin.internal.InlineOnly public inline fun `Byte.countTrailingZeroBits(): Int` = (toInt() or 0x100).countTrailingZeroBits() Returns a number having a single bit set in the position of the most significant set bit of this [Byte] number, or zero, if this number is zero.

`*@SinceKotlin("1.3")@ExperimentalStdlibApi` @kotlin.internal.InlineOnly public inline fun `Byte.takeHighestOneBit(): Byte` = (toInt() and 0xFF).takeHighestOneBit().toByte() Returns a number having a single bit set in the position of the least significant set bit of this [Byte] number, or zero, if



```

(toInt().shl(16 - (bitCount and 15)) or (toInt() and 0xFFFF).ushr(bitCount and 15)).toShort()\r\n", "/*\r\n * Copyright
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governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage
kotlin\r\nimport kotlin.internal.RequireKotlin\r\nimport
kotlin.internal.RequireKotlinVersionKind\r\n\r\n@kotlin.internal.InlineOnly\r\n@SinceKotlin("1.2")\r\n@Suppress
("INVISIBLE_MEMBER", "INVISIBLE_REFERENCE")\r\n@RequireKotlin("1.2.30", level =
DeprecationLevel.HIDDEN, versionKind = RequireKotlinVersionKind.COMPILER_VERSION)\r\npublic inline
fun <R> suspend(noinline block: suspend () -> R): suspend () -> R = block\r\n", "/*\r\n * Copyright 2010-2018
JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n
*/\r\n\r\n@file:kotlin.jvm.JvmName("TuplesKt")\r\n\r\npackage kotlin\r\n\r\n\r\n/*\r\n * Represents a generic
pair of two values.\r\n * There is no meaning attached to values in this class, it can be used for any purpose.\r\n
* Pair exhibits value semantics, i.e. two pairs are equal if both components are equal.\r\n * An example of
decomposing it into values:\r\n * @sample samples.misc.Tuples.pairDestructuring\r\n * @param A type of the
first value.\r\n * @param B type of the second value.\r\n * @property first First value.\r\n * @property second
Second value.\r\n * @constructor Creates a new instance of Pair.\r\n */\r\n\r\npublic data class Pair<out A, out B>(\r\n
public val first: A,\r\n public val second: B\r\n) : Serializable {\r\n\r\n /*\r\n * Returns string representation
of the [Pair] including its [first] and [second] values.\r\n * \r\n public override fun toString(): String = "$first,
$second)\r\n\r\n\r\n\r\n/*\r\n * Creates a tuple of type [Pair] from this and [that].\r\n * This can be useful for
creating [Map] literals with less noise, for example:\r\n * @sample
samples.collections.Maps.instantiation.mapFromPairs\r\n * \r\n\r\npublic infix fun <A, B> A.to(that: B): Pair<A, B> =
Pair(this, that)\r\n\r\n\r\n\r\n/*\r\n * Converts this pair into a list.\r\n * @sample samples.misc.Tuples.pairToList\r\n
*/\r\n\r\npublic fun <T> Pair<T, T>.toList(): List<T> = listOf(first, second)\r\n\r\n\r\n\r\n/*\r\n * Represents a triad of
values\r\n * There is no meaning attached to values in this class, it can be used for any purpose.\r\n * Triple
exhibits value semantics, i.e. two triples are equal if all three components are equal.\r\n * An example of
decomposing it into values:\r\n * @sample samples.misc.Tuples.tripleDestructuring\r\n * @param A type of
the first value.\r\n * @param B type of the second value.\r\n * @param C type of the third value.\r\n * @property
first First value.\r\n * @property second Second value.\r\n * @property third Third value.\r\n */\r\n\r\npublic data class
Triple<out A, out B, out C>(\r\n public val first: A,\r\n public val second: B,\r\n public val third: C\r\n) :
Serializable {\r\n\r\n /*\r\n * Returns string representation of the [Triple] including its [first], [second] and
[third] values.\r\n * \r\n public override fun toString(): String = "$first, $second, $third)\r\n\r\n\r\n\r\n\r\n
/*\r\n * Converts this triple into a list.\r\n * @sample samples.misc.Tuples.tripleToList\r\n * \r\n\r\npublic fun <T> Triple<T, T,
T>.toList(): List<T> = listOf(first, second, third)\r\n", "/*\r\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin
Programming Language contributors.\r\n * Use of this source code is governed by the Apache 2.0 license that can be
found in the license/LICENSE.txt file.\r\n */\r\n\r\n\r\n@file:Suppress("INVISIBLE_REFERENCE",
"INVISIBLE_MEMBER")\r\n\r\npackage kotlin\r\n\r\nimport kotlin.annotation.AnnotationTarget.*\r\nimport
kotlin.internal.RequireKotlin\r\nimport kotlin.internal.RequireKotlinVersionKind\r\n\r\n\r\n/*\r\n * Marks the API that
is dependent on the experimental unsigned types, including those types themselves.\r\n * Usages of such API
will be reported as warnings unless an explicit opt-in with\r\n * the [UseExperimental] annotation, e.g.
`@UseExperimental(ExperimentalUnsignedTypes::class)`,\r\n * or with the `-Xuse-
experimental=kotlin.ExperimentalUnsignedTypes` compiler option is given.\r\n * It's recommended to
propagate the experimental status to the API that depends on unsigned types by annotating it with this
annotation.\r\n * \r\n @Experimental(level =
Experimental.Level.WARNING)\r\n @MustBeDocumented\r\n @Target(CLASS, ANNOTATION_CLASS,
PROPERTY, FIELD, LOCAL_VARIABLE, VALUE_PARAMETER, CONSTRUCTOR, FUNCTION,
PROPERTY_GETTER, PROPERTY_SETTER,
TYPEALIAS)\r\n @Retention(AnnotationRetention.BINARY)\r\n @RequireKotlin("1.2.50", versionKind =
RequireKotlinVersionKind.COMPILER_VERSION)\r\n\r\npublic annotation class

```



```

value in the sequence without boxing. */
public abstract fun nextUShort(): UShort }
/** An iterator
over a sequence of values of type `UInt`. */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public abstract class UIntIterator : Iterator<UInt> {
    override final fun next() = nextUInt()
    /** Returns the
next value in the sequence without boxing. */
    public abstract fun nextUInt(): UInt }
/** An iterator
over a sequence of values of type `ULong`. */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public abstract class ULongIterator : Iterator<ULong> {
    override final fun next() = nextULong()
    /** Returns
the next value in the sequence without boxing. */
    public abstract fun nextULong(): ULong }
"/**
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code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.
*/
// Auto-generated file. DO NOT EDIT!
package kotlin.ranges
import kotlin.internal.*
/* A
range of values of type `ULong`. */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public class ULongRange(start: ULong, endInclusive: ULong) : ULongProgression(start, endInclusive, 1),
ClosedRange<ULong> {
    override val start: ULong get() = first
    override val endInclusive: ULong get() =
last
    override fun contains(value: ULong): Boolean = first <= value && value <= last
    override fun
isEmpty(): Boolean = first > last
    override fun equals(other: Any?): Boolean =
        other is ULongRange && (isEmpty() && other.isEmpty() ||
            first == other.first && last == other.last)
    override fun
hashCode(): Int =
        if (isEmpty()) -1 else (31 * (first xor (first shr 32)).toInt() + (last xor (last shr
32)).toInt())
    override fun toString(): String = "$first..$last"
    companion object {
        /** An
empty range of values of type ULong. */
        public val EMPTY: ULongRange =
        ULongRange(ULong.MAX_VALUE, ULong.MIN_VALUE)
    }
}
/** A progression of values of
type `ULong`. */
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
public open class
ULongProgression(
    internal constructor(
        start: ULong,
        endInclusive: ULong,
        step: Long
    ) :
Iterable<ULong> {
    init {
        if (step == 0.toLong()) throw kotlin.IllegalArgumentException("Step must
be non-zero.")
        if (step == Long.MIN_VALUE) throw kotlin.IllegalArgumentException("Step must be
greater than Long.MIN_VALUE to avoid overflow on negation.")
    }
    /**
* The first element in
the progression. */
    public val first: ULong = start
    /**
* The last element in the
progression. */
    public val last: ULong = getProgressionLastElement(start, endInclusive, step)
    /**
* The step of the progression. */
    public val step: Long = step
    override fun iterator():
        ULongIterator = ULongProgressionIterator(first, last, step)
    /** Checks if the progression is empty. */
    public open fun isEmpty(): Boolean = if (step > 0) first > last else first < last
    override fun equals(other:
        Any?): Boolean =
            other is ULongProgression && (isEmpty() && other.isEmpty() ||
                first ==
                other.first && last == other.last && step == other.step)
    override fun hashCode(): Int =
        if
(isEmpty()) -1 else (31 * (31 * (first xor (first shr 32)).toInt() + (last xor (last shr 32)).toInt()) + (step xor (step ushr
32)).toInt())
    override fun toString(): String = if (step > 0) "$first..$last step $step" else "$first downTo
$last step ${-step}"
    companion object {
        /**
* Creates ULongProgression within the
specified bounds of a closed range.
* The progression starts with the [rangeStart] value and goes toward
the [rangeEnd] value not excluding it, with the specified [step].
* In order to go backwards the [step] must
be negative.
* [step] must be greater than `Long.MIN_VALUE` and not equal to zero.
*/
        public fun fromClosedRange(rangeStart: ULong, rangeEnd: ULong, step: Long): ULongProgression =
        ULongProgression(rangeStart, rangeEnd, step)
    }
}
/** An iterator over a progression of
values of type `ULong`.
* @property step the number by which the value is incremented on each step.
*/
@SinceKotlin("1.3")
@ExperimentalUnsignedTypes
private class ULongProgressionIterator(first:
        ULong, last: ULong, step: Long) : ULongIterator() {
    private val finalElement = last
    private var hasNext:
        Boolean = if (step > 0) first <= last else first >= last
    private val step = step.toULong() // use 2-complement
math for negative steps
    private var next = if (hasNext) first else finalElement
    override fun hasNext():
        Boolean = hasNext
    override fun nextULong(): ULong {
        val value = next
        if (value ==
        finalElement) {
            if (!hasNext) throw kotlin.NoSuchElementException()
            hasNext = false
        }
        else {
            next += step
        }
        return value
    }
}
"/**
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```

```

JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n */\r\n\r\npackage kotlin.math\r\n\r\n/**\r\n * Returns the smaller of two values.\r\n */\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
min(a: UInt, b: UInt): UInt { \r\n    return minOf(a, b)\r\n}\r\n\r\n/**\r\n * Returns the smaller of two values.\r\n */\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic inline fun
min(a: ULong, b: ULong): ULong { \r\n    return minOf(a, b)\r\n}\r\n\r\n/**\r\n * Returns the greater of two
values.\r\n */\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic
inline fun max(a: UInt, b: UInt): UInt { \r\n    return maxOf(a, b)\r\n}\r\n\r\n/**\r\n * Returns the greater of two
values.\r\n */\r\n@SinceKotlin("1.3")\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.InlineOnly\r\npublic
inline fun max(a: ULong, b: ULong): ULong { \r\n    return maxOf(a, b)\r\n}
", "*/\r\n * Copyright 2010-2019
JetBrains s.r.o. and Kotlin Programming Language contributors.\r\n * Use of this source code is governed by the
Apache 2.0 license that can be found in the license/LICENSE.txt file.\r\n
*/\r\n\r\n@file:kotlin.jvm.JvmName("UNumbersKt")\r\npackage kotlin\r\n\r\n/**\r\n * Counts the number of set
bits in the binary representation of this [UInt] number.\r\n */\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UInt.countOneBits(): Int = toInt().countOneBits()\r\n\r\n/**\r\n * Counts the number of
consecutive most significant bits that are zero in the binary representation of this [UInt] number.\r\n */\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UInt.countLeadingZeroBits(): Int = toInt().countLeadingZeroBits()\r\n\r\n/**\r\n *
Counts the number of consecutive least significant bits that are zero in the binary representation of this [UInt]
number.\r\n */\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UInt.countTrailingZeroBits(): Int = toInt().countTrailingZeroBits()\r\n\r\n/**\r\n *
Returns a number having a single bit set in the position of the most significant set bit of this [UInt] number,\r\n *
or zero, if this number is zero.\r\n */\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UInt.takeHighestOneBit(): UInt = toInt().takeHighestOneBit().toUInt()\r\n\r\n/**\r\n *
Returns a number having a single bit set in the position of the least significant set bit of this [UInt] number,\r\n *
or zero, if this number is zero.\r\n */\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UInt.takeLowestOneBit(): UInt = toInt().takeLowestOneBit().toUInt()\r\n\r\n/**\r\n *
Rotates the binary representation of this [UInt] number left by the specified [bitCount] number of bits.\r\n *
The most significant bits pushed out from the left side reenter the number as the least significant bits on the right
side.\r\n * Rotating the number left by a negative bit count is the same as rotating it right by the negated bit
count:\r\n * `number.rotateLeft(-n) == number.rotateRight(n)`\r\n * Rotating by a multiple of
[UInt.SIZE_BITS] (32) returns the same number, or more generally\r\n * `number.rotateLeft(n) ==
number.rotateLeft(n % 32)`\r\n */\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UInt.rotateLeft(bitCount: Int): UInt =
toInt().rotateLeft(bitCount).toUInt()\r\n\r\n/**\r\n * Rotates the binary representation of this [UInt] number right
by the specified [bitCount] number of bits.\r\n * The least significant bits pushed out from the right side reenter the
number as the most significant bits on the left side.\r\n * Rotating the number right by a negative bit count is
the same as rotating it left by the negated bit count:\r\n * `number.rotateRight(-n) == number.rotateLeft(n)`\r\n *
Rotating by a multiple of [UInt.SIZE_BITS] (32) returns the same number, or more generally\r\n *
`number.rotateRight(n) == number.rotateRight(n % 32)`\r\n */\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UInt.rotateRight(bitCount: Int): UInt =

```

```

toInt().rotateRight(bitCount).toUInt()\r\n\r\n\r\n**\r\n * Counts the number of set bits in the binary representation
of this [ULong] number.\r\n
*\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun ULong.countOneBits(): Int = toLong().countOneBits()\r\n\r\n**\r\n * Counts the
number of consecutive most significant bits that are zero in the binary representation of this [ULong] number.\r\n
*\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun ULong.countLeadingZeroBits(): Int = toLong().countLeadingZeroBits()\r\n\r\n**\r\n *
Counts the number of consecutive least significant bits that are zero in the binary representation of this [ULong]
number.\r\n
*\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun ULong.countTrailingZeroBits(): Int = toLong().countTrailingZeroBits()\r\n\r\n**\r\n *
Returns a number having a single bit set in the position of the most significant set bit of this [ULong] number,\r\n *
or zero, if this number is zero.\r\n
*\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun ULong.takeHighestOneBit(): ULong =
toLong().takeHighestOneBit().toULong()\r\n\r\n**\r\n * Returns a number having a single bit set in the position of
the least significant set bit of this [ULong] number,\r\n * or zero, if this number is zero.\r\n
*\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun ULong.takeLowestOneBit(): ULong =
toLong().takeLowestOneBit().toULong()\r\n\r\n**\r\n * Rotates the binary representation of this [ULong] number
left by the specified [bitCount] number of bits.\r\n * The most significant bits pushed out from the left side reenter
the number as the least significant bits on the right side.\r\n * \r\n * Rotating the number left by a negative bit count
is the same as rotating it right by the negated bit count:\r\n * `number.rotateLeft(-n) == number.rotateRight(n)`\r\n
*\r\n * Rotating by a multiple of [ULong.SIZE_BITS] (64) returns the same number, or more generally\r\n *
`number.rotateLeft(n) == number.rotateLeft(n % 64)`\r\n
*\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun ULong.rotateLeft(bitCount: Int): ULong =
toLong().rotateLeft(bitCount).toULong()\r\n\r\n**\r\n * Rotates the binary representation of this [ULong] number
right by the specified [bitCount] number of bits.\r\n * The least significant bits pushed out from the right side reenter
the number as the most significant bits on the left side.\r\n * \r\n * Rotating the number right by a negative bit count
is the same as rotating it left by the negated bit count:\r\n * `number.rotateRight(-n) == number.rotateLeft(n)`\r\n
*\r\n * Rotating by a multiple of [ULong.SIZE_BITS] (64) returns the same number, or more generally\r\n *
`number.rotateRight(n) == number.rotateRight(n % 64)`\r\n
*\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun ULong.rotateRight(bitCount: Int): ULong =
toLong().rotateRight(bitCount).toULong()\r\n\r\n**\r\n * Counts the number of set bits in the binary representation
of this [UByte] number.\r\n
*\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UByte.countOneBits(): Int = toUInt().countOneBits()\r\n\r\n**\r\n * Counts the number
of consecutive most significant bits that are zero in the binary representation of this [UByte] number.\r\n
*\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UByte.countLeadingZeroBits(): Int = toByte().countLeadingZeroBits()\r\n\r\n**\r\n *
Counts the number of consecutive least significant bits that are zero in the binary representation of this [UByte]
number.\r\n
*\r\n@SinceKotlin("1.3")\r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UByte.countTrailingZeroBits(): Int = toByte().countTrailingZeroBits()\r\n\r\n**\r\n *
Returns a number having a single bit set in the position of the most significant set bit of this [UByte] number,\r\n *
or zero, if this number is zero.\r\n

```

```

*\/r\n@SinceKotlin("1.3")r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UByte.takeHighestOneBit(): UByte =
toInt().takeHighestOneBit().toUByte()\r\n\r\n/**\r\n * Returns a number having a single bit set in the position of the
least significant set bit of this [UByte] number,\r\n * or zero, if this number is zero.\r\n
*\/r\n@SinceKotlin("1.3")r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UByte.takeLowestOneBit(): UByte =
toInt().takeLowestOneBit().toUByte()\r\n\r\n\r\n/**\r\n * Rotates the binary representation of this [UByte] number
left by the specified [bitCount] number of bits.\r\n * The most significant bits pushed out from the left side reenter
the number as the least significant bits on the right side.\r\n * \r\n * Rotating the number left by a negative bit count
is the same as rotating it right by the negated bit count:\r\n * `number.rotateLeft(-n) == number.rotateRight(n)`\r\n
*\r\n * Rotating by a multiple of [UByte.SIZE_BITS] (8) returns the same number, or more generally\r\n *
`number.rotateLeft(n) == number.rotateLeft(n % 8)`\r\n
*\/r\n@SinceKotlin("1.3")r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UByte.rotateLeft(bitCount: Int): UByte =
toByte().rotateLeft(bitCount).toUByte()\r\n\r\n\r\n/**\r\n * Rotates the binary representation of this [UByte] number
right by the specified [bitCount] number of bits.\r\n * The least significant bits pushed out from the right side reenter
the number as the most significant bits on the left side.\r\n * \r\n * Rotating the number right by a negative bit count
is the same as rotating it left by the negated bit count:\r\n * `number.rotateRight(-n) == number.rotateLeft(n)`\r\n
*\r\n * Rotating by a multiple of [UByte.SIZE_BITS] (8) returns the same number, or more generally\r\n *
`number.rotateRight(n) == number.rotateRight(n % 8)`\r\n
*\/r\n@SinceKotlin("1.3")r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UByte.rotateRight(bitCount: Int): UByte =
toByte().rotateRight(bitCount).toUByte()\r\n\r\n\r\n/**\r\n * Counts the number of set bits in the binary representation
of this [UShort] number.\r\n
*\/r\n@SinceKotlin("1.3")r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UShort.countOneBits(): Int = toUInt().countOneBits()\r\n\r\n\r\n/**\r\n * Counts the
number of consecutive most significant bits that are zero in the binary representation of this [UShort] number.\r\n
*\/r\n@SinceKotlin("1.3")r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UShort.countLeadingZeroBits(): Int = toShort().countLeadingZeroBits()\r\n\r\n\r\n/**\r\n *
Counts the number of consecutive least significant bits that are zero in the binary representation of this [UShort]
number.\r\n
*\/r\n@SinceKotlin("1.3")r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UShort.countTrailingZeroBits(): Int = toShort().countTrailingZeroBits()\r\n\r\n\r\n/**\r\n *
Returns a number having a single bit set in the position of the most significant set bit of this [UShort] number,\r\n *
or zero, if this number is zero.\r\n
*\/r\n@SinceKotlin("1.3")r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UShort.takeHighestOneBit(): UShort =
toInt().takeHighestOneBit().toUShort()\r\n\r\n\r\n/**\r\n * Returns a number having a single bit set in the position of the
least significant set bit of this [UShort] number,\r\n * or zero, if this number is zero.\r\n
*\/r\n@SinceKotlin("1.3")r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli
neOnly\r\npublic inline fun UShort.takeLowestOneBit(): UShort =
toInt().takeLowestOneBit().toUShort()\r\n\r\n\r\n\r\n/**\r\n * Rotates the binary representation of this [UShort] number
left by the specified [bitCount] number of bits.\r\n * The most significant bits pushed out from the left side reenter
the number as the least significant bits on the right side.\r\n * \r\n * Rotating the number left by a negative bit count
is the same as rotating it right by the negated bit count:\r\n * `number.rotateLeft(-n) == number.rotateRight(n)`\r\n
*\r\n * Rotating by a multiple of [UShort.SIZE_BITS] (16) returns the same number, or more generally\r\n *
`number.rotateLeft(n) == number.rotateLeft(n % 16)`\r\n
*\/r\n@SinceKotlin("1.3")r\n@ExperimentalStdlibApi\r\n@ExperimentalUnsignedTypes\r\n@kotlin.internal.Inli

```





```

*@\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun String.toUShortOrNull(radix: Int):
UShort? { \n    val int = this.toUIntOrNull(radix) ?: return null\n    if (int > UShort.MAX_VALUE) return null\n
return int.toUShort()\n}\n*\n * Parses the string as an [UInt] number and returns the result\n * or `null`
if the string is not a valid representation of a number.\n
*@\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun String.toUIntOrNull(): UInt? =
toUIntOrNull(radix = 10)\n*\n * Parses the string as an [UInt] number and returns the result\n * or `null` if
the string is not a valid representation of a number.\n * \n * @throws IllegalArgumentException when [radix] is
not a valid radix for string to number conversion.\n
*@\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun String.toUIntOrNull(radix: Int): UInt?
{\n    checkRadix(radix)\n    val length = this.length\n    if (length == 0) return null\n    val limit: UInt =
UInt.MAX_VALUE\n    val start: Int\n    val firstChar = this[0]\n    if (firstChar < '0') {\n        if (length ==
1 || firstChar != '+') return null\n        start = 1\n    } else {\n        start = 0\n    }\n    val uradix =
radix.toUInt()\n    val limitBeforeMul = limit / uradix\n    var result = 0u\n    for (i in start until length) {\n
val digit = digitOf(this[i], radix)\n        if (digit < 0) return null\n        if (result > limitBeforeMul) return
null\n        result *= uradix\n        val beforeAdding = result\n        result += digit.toUInt()\n        if
(result < beforeAdding) return null // overflow has happened\n    }\n    return result\n}\n*\n * Parses
the string as an [ULong] number and returns the result\n * or `null` if the string is not a valid representation of a
number.\n * \n *@\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun String.toULongOrNull():
ULong? = toULongOrNull(radix = 10)\n*\n * Parses the string as an [ULong] number and returns the
result\n * or `null` if the string is not a valid representation of a number.\n * \n * @throws
IllegalArgumentException when [radix] is not a valid radix for string to number conversion.\n
*@\n@SinceKotlin("1.3")\n@ExperimentalUnsignedTypes\npublic fun String.toULongOrNull(radix: Int):
ULong? {\n    checkRadix(radix)\n    val length = this.length\n    if (length == 0) return null\n    val
limit: ULong = ULong.MAX_VALUE\n    val start: Int\n    val firstChar = this[0]\n    if (firstChar < '0')
{\n        if (length == 1 || firstChar != '+') return null\n        start = 1\n    } else {\n        start = 0\n
}\n    val uradix = radix.toUInt()\n    val limitBeforeMul = limit / uradix\n    var result = 0uL\n    for (i
in start until length) {\n        val digit = digitOf(this[i], radix)\n        if (digit < 0) return null\n        if
(result > limitBeforeMul) return null\n        result *= uradix\n        val beforeAdding = result\n        result +=
digit.toUInt()\n        if (result < beforeAdding) return null // overflow has happened\n    }\n    return
result\n}\n*\n * Copyright 2010-2018 JetBrains s.r.o. and Kotlin Programming Language contributors.\n *
Use of this source code is governed by the Apache 2.0 license that can be found in the license/LICENSE.txt file.\n
*@\n@file:kotlin.jvm.JvmMultifileClass\n@file:kotlin.jvm.JvmName("MathKt")\n\npackage
kotlin.math\n\n// constants, can't use them from nativeMath as they are not constants there\n*\n * Ratio
of the circumference of a circle to its diameter, approximately 3.14159. *\n *@\n@SinceKotlin("1.2")\n\npublic const
val PI: Double = 3.141592653589793\n*\n * Base of the natural logarithms, approximately 2.71828.
*\n *@\n@SinceKotlin("1.2")\n\npublic const val E: Double = 2.718281828459045\n\n// region
===== Double Math =====\n\n * Computes
the sine of the angle [x] given in radians.\n * \n * Special cases:\n * - `sin(NaN|+Inf|-Inf)` is `NaN`\n
*\n *@\n@SinceKotlin("1.2")\n\npublic expect fun sin(x: Double): Double\n\n * Computes the cosine of the angle
[x] given in radians.\n * \n * Special cases:\n * - `cos(NaN|+Inf|-Inf)` is `NaN`\n
*\n *@\n@SinceKotlin("1.2")\n\npublic expect fun cos(x: Double): Double\n\n * Computes the tangent of the
angle [x] given in radians.\n * \n * Special cases:\n * - `tan(NaN|+Inf|-Inf)` is `NaN`\n
*\n *@\n@SinceKotlin("1.2")\n\npublic expect fun tan(x: Double): Double\n\n * Computes the arc sine of
the value [x];\n * the returned value is an angle in the range from `-PI/2` to `PI/2` radians.\n * \n * Special
cases:\n * - `asin(x)` is `NaN`, when `abs(x) > 1` or x is `NaN`\n
*\n *@\n@SinceKotlin("1.2")\n\npublic expect fun asin(x: Double): Double\n\n * Computes the arc cosine of the value [x];\n
* the returned value is an angle in the range from `0.0` to `PI` radians.\n * \n * Special cases:\n * - `acos(x)`
is `NaN`, when `abs(x) > 1` or x is `NaN`\n
*\n *@\n@SinceKotlin("1.2")\n\npublic expect fun acos(x: Double): Double\n\n *

```

Computes the arc tangent of the value [x]; the returned value is an angle in the range from  $-\pi/2$  to  $\pi/2$  radians.

Special cases:  $\text{atan}(\text{NaN})$  is  $\text{NaN}$

```

@SinceKotlin("1.2")
public expect fun atan(x: Double): Double

```

Computes the angle  $\theta$  of the polar coordinates  $(r, \theta)$  that correspond to the rectangular coordinates  $(x, y)$  by computing the arc tangent of the value  $y / x$ . The returned value is an angle in the range from  $-\pi$  to  $\pi$  radians.

Special cases:  $\text{atan2}(0.0, 0.0)$  is  $0.0$ ;  $\text{atan2}(0.0, x)$  is  $0.0$  for  $x > 0$  and  $\pi$  for  $x < 0$ ;  $\text{atan2}(-0.0, x)$  is  $-0.0$  for  $x > 0$  and  $-\pi$  for  $x < 0$ ;  $\text{atan2}(y, +\text{Inf})$  is  $0.0$  for  $0 < y < +\text{Inf}$  and  $-0.0$  for  $-\text{Inf} < y < 0$ ;  $\text{atan2}(y, -\text{Inf})$  is  $\pi$  for  $0 < y < +\text{Inf}$  and  $-\pi$  for  $-\text{Inf} < y < 0$ ;  $\text{atan2}(y, 0.0)$  is  $\pi/2$  for  $y > 0$  and  $-\pi/2$  for  $y < 0$ ;  $\text{atan2}(+\text{Inf}, x)$  is  $\pi/2$  for finite  $x$ ;  $\text{atan2}(-\text{Inf}, x)$  is  $-\pi/2$  for finite  $x$ ;  $\text{atan2}(\text{NaN}, x)$  and  $\text{atan2}(y, \text{NaN})$  is  $\text{NaN}$

```

@SinceKotlin("1.2")
public expect fun atan2(y: Double, x: Double): Double

```

Computes the hyperbolic sine of the value [x].

Special cases:  $\text{sinh}(\text{NaN})$  is  $\text{NaN}$ ;  $\text{sinh}(+\text{Inf})$  is  $+\text{Inf}$ ;  $\text{sinh}(-\text{Inf})$  is  $-\text{Inf}$

```

@SinceKotlin("1.2")
public expect fun sinh(x: Double): Double

```

Computes the hyperbolic cosine of the value [x].

Special cases:  $\text{cosh}(\text{NaN})$  is  $\text{NaN}$ ;  $\text{cosh}(+\text{Inf})$  is  $+\text{Inf}$ ;  $\text{cosh}(-\text{Inf})$  is  $+\text{Inf}$

```

@SinceKotlin("1.2")
public expect fun cosh(x: Double): Double

```

Computes the hyperbolic tangent of the value [x].

Special cases:  $\text{tanh}(\text{NaN})$  is  $\text{NaN}$ ;  $\text{tanh}(+\text{Inf})$  is  $1.0$ ;  $\text{tanh}(-\text{Inf})$  is  $-1.0$

```

@SinceKotlin("1.2")
public expect fun tanh(x: Double): Double

```

Computes the inverse hyperbolic sine of the value [x]. The returned value is  $y$  such that  $\text{sinh}(y) == x$ .

Special cases:  $\text{asinh}(\text{NaN})$  is  $\text{NaN}$ ;  $\text{asinh}(+\text{Inf})$  is  $+\text{Inf}$ ;  $\text{asinh}(-\text{Inf})$  is  $-\text{Inf}$

```

@SinceKotlin("1.2")
public expect fun asinh(x: Double): Double

```

Computes the inverse hyperbolic cosine of the value [x]. The returned value is positive  $y$  such that  $\text{cosh}(y) == x$ .

Special cases:  $\text{acosh}(\text{NaN})$  is  $\text{NaN}$ ;  $\text{acosh}(x)$  is  $\text{NaN}$  when  $x < 1$ ;  $\text{acosh}(+\text{Inf})$  is  $+\text{Inf}$

```

@SinceKotlin("1.2")
public expect fun acosh(x: Double): Double

```

Computes the inverse hyperbolic tangent of the value [x]. The returned value is  $y$  such that  $\text{tanh}(y) == x$ .

Special cases:  $\text{atanh}(\text{NaN})$  is  $\text{NaN}$ ;  $\text{atanh}(x)$  is  $\text{NaN}$  when  $x > 1$  or  $x < -1$ ;  $\text{atanh}(1.0)$  is  $+\text{Inf}$ ;  $\text{atanh}(-1.0)$  is  $-\text{Inf}$

```

@SinceKotlin("1.2")
public expect fun atanh(x: Double): Double

```

Computes  $\sqrt{x^2 + y^2}$  without intermediate overflow or underflow.

Special cases: returns  $+\text{Inf}$  if any of arguments is infinite; returns  $\text{NaN}$  if any of arguments is  $\text{NaN}$  and the other is not infinite

```

@SinceKotlin("1.2")
public expect fun hypot(x: Double, y: Double): Double

```

Computes the positive square root of the value [x].

Special cases:  $\sqrt{x}$  is  $\text{NaN}$  when  $x < 0$  or  $x$  is  $\text{NaN}$

```

@SinceKotlin("1.2")
public expect fun sqrt(x: Double): Double

```

Computes Euler's number  $e$  raised to the power of the value [x].

Special cases:  $\text{exp}(\text{NaN})$  is  $\text{NaN}$ ;  $\text{exp}(+\text{Inf})$  is  $+\text{Inf}$ ;  $\text{exp}(-\text{Inf})$  is  $0.0$

```

@SinceKotlin("1.2")
public expect fun exp(x: Double): Double

```

Computes  $\exp(x) - 1$ . This function can be implemented to produce more precise result for [x] near zero.

Special cases:  $\text{expm1}(\text{NaN})$  is  $\text{NaN}$ ;  $\text{expm1}(+\text{Inf})$  is  $+\text{Inf}$ ;  $\text{expm1}(-\text{Inf})$  is  $-1.0$

```

@see [exp] function
@SinceKotlin("1.2")
public expect fun expm1(x: Double): Double

```

Computes the logarithm of the value [x] to the given [base].

Special cases:  $\log(x, b)$  is  $\text{NaN}$  if either  $x$  or  $b$  are  $\text{NaN}$ ;  $\log(x, b)$  is  $\text{NaN}$  when  $x < 0$  or  $b \leq 0$  or  $b == 1.0$ ;  $\log(+\text{Inf}, +\text{Inf})$  is  $\text{NaN}$ ;  $\log(+\text{Inf}, b)$  is  $+\text{Inf}$  for  $b > 1$  and  $-\text{Inf}$  for  $b < 1$ ;  $\log(0.0, b)$  is  $-\text{Inf}$  for  $b > 1$  and  $+\text{Inf}$  for  $b < 1$ . See also logarithm functions for common fixed bases: [ln], [log10] and [log2].

```

@SinceKotlin("1.2")
public expect fun log(x: Double, base: Double): Double

```

Computes the natural logarithm (base  $E$ ) of the value [x].

Special cases:  $\ln(\text{NaN})$  is  $\text{NaN}$ ;  $\ln(x)$  is  $\text{NaN}$  when  $x < 0.0$ ;  $\ln(+\text{Inf})$  is  $+\text{Inf}$ ;  $\ln(0.0)$  is  $-\text{Inf}$

```

@SinceKotlin("1.2")
public expect fun ln(x: Double): Double

```

Computes the common logarithm (base 10) of the value [x]. @see [ln] function for special cases.

```

@SinceKotlin("1.2")
public expect fun log10(x: Double): Double

```

Computes the binary logarithm (base 2) of the value [x]. @see [ln] function for special cases.

`@SinceKotlin("1.2")` public expect fun `log2(x: Double): Double` Computes  $\ln(x + 1)$ . This function can be implemented to produce more precise result for  $[x]$  near zero. Special cases: `-ln1p(NaN)` is `NaN`, `-ln1p(x)` is `NaN` where  $x < -1.0$ , `-ln1p(-1.0)` is `-Inf`, `-ln1p(+Inf)` is `+Inf`. @see `[ln]` function @see `[expm1]` function

`@SinceKotlin("1.2")` public expect fun `ln1p(x: Double): Double` Rounds the given value  $[x]$  to an integer towards positive infinity. @return the smallest double value that is greater than or equal to the given value  $[x]$  and is a mathematical integer. Special cases: `-ceil(x)` is `x` where  $x$  is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.

`@SinceKotlin("1.2")` public expect fun `ceil(x: Double): Double` Rounds the given value  $[x]$  to an integer towards negative infinity. @return the largest double value that is smaller than or equal to the given value  $[x]$  and is a mathematical integer. Special cases: `-floor(x)` is `x` where  $x$  is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.

`@SinceKotlin("1.2")` public expect fun `floor(x: Double): Double` Rounds the given value  $[x]$  to an integer towards zero. @return the value  $[x]$  having its fractional part truncated. Special cases: `-truncate(x)` is `x` where  $x$  is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.

`@SinceKotlin("1.2")` public expect fun `truncate(x: Double): Double` Rounds the given value  $[x]$  towards the closest integer with ties rounded towards even integer. Special cases: `-round(x)` is `x` where  $x$  is `NaN` or `+Inf` or `-Inf` or already a mathematical integer.

`@SinceKotlin("1.2")` public expect fun `round(x: Double): Double` Returns the absolute value of the given value  $[x]$ . Special cases: `-abs(NaN)` is `NaN`. @see `absoluteValue` extension property for `[Double]`.

`@SinceKotlin("1.2")` public expect fun `abs(x: Double): Double` Returns the sign of the given value  $[x]$ : `-1.0` if the value is negative, zero if the value is zero, `1.0` if the value is positive. Special case: `-sign(NaN)` is `NaN`.

`@SinceKotlin("1.2")` public expect fun `sign(x: Double): Double` Returns the smaller of two values. If either value is `NaN`, then the result is `NaN`.

`@SinceKotlin("1.2")` public expect fun `min(a: Double, b: Double): Double` Returns the greater of two values. If either value is `NaN`, then the result is `NaN`.

`@SinceKotlin("1.2")` public expect fun `max(a: Double, b: Double): Double` extensions Raises this value to the power  $[x]$ . Special cases: `-b.pow(0.0)` is `1.0`, `-b.pow(1.0) == b`, `-b.pow(NaN)` is `NaN`, `-NaN.pow(x)` is `NaN` for  $x \neq 0.0$ , `-b.pow(Inf)` is `NaN` for `abs(b) == 1.0`, `-b.pow(x)` is `NaN` for  $b < 0$  and  $x$  is finite and not an integer.

`@SinceKotlin("1.2")` public expect fun `Double.pow(x: Double): Double` Raises this value to the integer power  $[n]$ . See the other overload of `[pow]` for details.

`@SinceKotlin("1.2")` public expect fun `Double.pow(n: Int): Double` Returns the absolute value of this value. Special cases: `-NaN.absoluteValue` is `NaN`. @see `abs` function.

`@SinceKotlin("1.2")` public expect val `Double.absoluteValue: Double` Returns the sign of this value: `-1.0` if the value is negative, zero if the value is zero, `1.0` if the value is positive. Special case: `-NaN.sign` is `NaN`.

`@SinceKotlin("1.2")` public expect val `Double.sign: Double` Returns this value with the sign bit same as of the `[sign]` value. If `[sign]` is `NaN` the sign of the result is undefined.

`@SinceKotlin("1.2")` public expect fun `Double.withSign(sign: Double): Double` Returns this value with the sign bit same as of the `[sign]` value.

`@SinceKotlin("1.2")` public expect fun `Double.withSign(sign: Int): Double` Returns the ulp (unit in the last place) of this value. An ulp is a positive distance between this value and the next nearest `[Double]` value larger in magnitude. Special Cases: `-NaN.ulp` is `NaN`, `-x.ulp` is `+Inf` when  $x$  is `+Inf` or `-Inf`, `-0.0.ulp` is `Double.MIN_VALUE`.

`@SinceKotlin("1.2")` public expect val `Double.ulp: Double` Returns the `[Double]` value nearest to this value in direction of positive infinity.

`@SinceKotlin("1.2")` public expect fun `Double.nextUp(): Double` Returns the `[Double]` value nearest to this value in direction of negative infinity.

`@SinceKotlin("1.2")` public expect fun `Double.nextDown(): Double` Returns

the [Double] value nearest to this value in direction from this value towards the value [to].

Special cases: `-x.nextTowards(y)` is `NaN` if either `x` or `y` are `NaN`. `-x.nextTowards(x) == x`.

Since Kotlin("1.2")\r\npublic expect fun Double.nextTowards(to: Double): Double

Rounds this [Double] value to the nearest integer and converts the result to [Int].

Ties are rounded towards positive infinity.

Special cases: `-x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`. `-x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`.

@throws IllegalArgumentException when this value is `NaN`.

Since Kotlin("1.2")\r\npublic expect fun Double.roundToInt(): Int

Rounds this [Double] value to the nearest integer and converts the result to [Long].

Ties are rounded towards positive infinity.

Special cases: `-x.roundToLong() == Long.MAX_VALUE` when `x > Long.MAX_VALUE`. `-x.roundToLong() == Long.MIN_VALUE` when `x < Long.MIN_VALUE`.

@throws IllegalArgumentException when this value is `NaN`.

Since Kotlin("1.2")\r\npublic expect fun Double.roundToLong(): Long

Float Math

Computes the sine of the angle [x] given in radians.

Special cases: `-sin(NaN|+Inf|-Inf)` is `NaN`.

Since Kotlin("1.2")\r\npublic expect fun sin(x: Float): Float

Computes the cosine of the angle [x] given in radians.

Special cases: `-cos(NaN|+Inf|-Inf)` is `NaN`.

Since Kotlin("1.2")\r\npublic expect fun cos(x: Float): Float

Computes the tangent of the angle [x] given in radians.

Special cases: `-tan(NaN|+Inf|-Inf)` is `NaN`.

Since Kotlin("1.2")\r\npublic expect fun tan(x: Float): Float

Computes the arc sine of the value [x]; the returned value is an angle in the range from `-PI/2` to `PI/2` radians.

Special cases: `-asin(x)` is `NaN`, when `abs(x) > 1` or `x` is `NaN`.

Since Kotlin("1.2")\r\npublic expect fun asin(x: Float): Float

Computes the arc cosine of the value [x]; the returned value is an angle in the range from `0.0` to `PI` radians.

Special cases: `-acos(x)` is `NaN`, when `abs(x) > 1` or `x` is `NaN`.

Since Kotlin("1.2")\r\npublic expect fun acos(x: Float): Float

Computes the arc tangent of the value [x]; the returned value is an angle in the range from `-PI/2` to `PI/2` radians.

Special cases: `-atan(NaN)` is `NaN`.

Since Kotlin("1.2")\r\npublic expect fun atan(x: Float): Float

Returns the angle `theta` of the polar coordinates `(r, theta)` that correspond to the rectangular coordinates `(x, y)` by computing the arc tangent of the value `y / x`; the returned value is an angle in the range from `-PI` to `PI` radians.

Special cases: `-atan2(0.0, 0.0)` is `0.0`. `-atan2(0.0, x)` is `0.0` for `x > 0` and `PI` for `x < 0`. `-atan2(-0.0, x)` is `-0.0` for `x > 0` and `-PI` for `x < 0`. `-atan2(y, +Inf)` is `0.0` for `0 < y < +Inf` and `-0.0` for `-Inf < y < 0`. `-atan2(y, -Inf)` is `PI` for `0 < y < +Inf` and `-PI` for `-Inf < y < 0`. `-atan2(y, 0.0)` is `PI/2` for `y > 0` and `-PI/2` for `y < 0`. `-atan2(+Inf, x)` is `PI/2` for finite `x`. `-atan2(-Inf, x)` is `-PI/2` for finite `x`. `-atan2(NaN, x)` and `-atan2(y, NaN)` is `NaN`.

Since Kotlin("1.2")\r\npublic expect fun atan2(y: Float, x: Float): Float

Computes the hyperbolic sine of the value [x].

Special cases: `-sinh(NaN)` is `NaN`. `-sinh(+Inf)` is `+Inf`. `-sinh(-Inf)` is `-Inf`.

Since Kotlin("1.2")\r\npublic expect fun sinh(x: Float): Float

Computes the hyperbolic cosine of the value [x].

Special cases: `-cosh(NaN)` is `NaN`. `-cosh(+Inf|-Inf)` is `+Inf`.

Since Kotlin("1.2")\r\npublic expect fun cosh(x: Float): Float

Computes the hyperbolic tangent of the value [x].

Special cases: `-tanh(NaN)` is `NaN`. `-tanh(+Inf)` is `1.0`. `-tanh(-Inf)` is `-1.0`.

Since Kotlin("1.2")\r\npublic expect fun tanh(x: Float): Float

Computes the inverse hyperbolic sine of the value [x]. The returned value is `y` such that `sinh(y) == x`.

Special cases: `-asinh(NaN)` is `NaN`. `-asinh(+Inf)` is `+Inf`. `-asinh(-Inf)` is `-Inf`.

Since Kotlin("1.2")\r\npublic expect fun asinh(x: Float): Float

Computes the inverse hyperbolic cosine of the value [x]. The returned value is positive `y` such that `cosh(y) == x`.

Special cases: `-acosh(NaN)` is `NaN`. `-acosh(x)` is `NaN` when `x < 1`. `-acosh(+Inf)` is `+Inf`.

Since Kotlin("1.2")\r\npublic expect fun acosh(x: Float): Float

Computes the inverse hyperbolic tangent of the value [x]. The returned value is `y` such that `tanh(y) == x`.

Special cases:  $\tanh(\text{NaN})$  is  $\text{NaN}$   $\tanh(x)$  is  $\text{NaN}$  when  $x > 1$  or  $x < -1$   $\tanh(1.0)$  is  $+\text{Inf}$   $\tanh(-1.0)$  is  $-\text{Inf}$  `@SinceKotlin("1.2")` `public expect fun atanh(x: Float): Float` `/**` Computes  $\sqrt{x^2 + y^2}$  without intermediate overflow or underflow. `*/` `Special cases:` `- returns  $+\text{Inf}$  if any of arguments is infinite` `- returns  $\text{NaN}$  if any of arguments is  $\text{NaN}$  and the other is not infinite` `@SinceKotlin("1.2")` `public expect fun hypot(x: Float, y: Float): Float` `/**` Computes the positive square root of the value  $[x]$ . `*/` `Special cases:` `-  $\sqrt{x}$  is  $\text{NaN}$  when  $x < 0$  or  $x$  is  $\text{NaN}$`  `@SinceKotlin("1.2")` `public expect fun sqrt(x: Float): Float` `/**` Computes Euler's number  $e$  raised to the power of the value  $[x]$ . `*/` `Special cases:` `-  $\exp(\text{NaN})$  is  $\text{NaN}$`  `-  $\exp(+\text{Inf})$  is  $+\text{Inf}$`  `-  $\exp(-\text{Inf})$  is  $0.0$`  `@SinceKotlin("1.2")` `public expect fun exp(x: Float): Float` `/**` Computes  $\exp(x) - 1$ . `*/` `This function can be implemented to produce more precise result for  $[x]$  near zero.` `*/` `Special cases:` `-  $\expm1(\text{NaN})$  is  $\text{NaN}$`  `-  $\expm1(+\text{Inf})$  is  $+\text{Inf}$`  `-  $\expm1(-\text{Inf})$  is  $-1.0$`  `@see [exp]` `function.` `@SinceKotlin("1.2")` `public expect fun expm1(x: Float): Float` `/**` Computes the logarithm of the value  $[x]$  to the given  $[\text{base}]$ . `*/` `Special cases:` `-  $\log(x, b)$  is  $\text{NaN}$  if either  $x$  or  $b$  are  $\text{NaN}$`  `-  $\log(x, b)$  is  $\text{NaN}$  when  $x < 0$  or  $b \leq 0$  or  $b == 1.0$`  `-  $\log(+\text{Inf}, +\text{Inf})$  is  $\text{NaN}$`  `-  $\log(+\text{Inf}, b)$  is  $+\text{Inf}$  for  $b > 1$  and  $-\text{Inf}$  for  $b < 1$`  `-  $\log(0.0, b)$  is  $-\text{Inf}$  for  $b > 1$  and  $+\text{Inf}$  for  $b > 1$`  `*/` `See also logarithm functions for common fixed bases: [ln], [log10] and [log2].` `@SinceKotlin("1.2")` `public expect fun log(x: Float, base: Float): Float` `/**` Computes the natural logarithm (base  $E$ ) of the value  $[x]$ . `*/` `Special cases:` `-  $\ln(\text{NaN})$  is  $\text{NaN}$`  `-  $\ln(x)$  is  $\text{NaN}$  when  $x < 0.0$`  `-  $\ln(+\text{Inf})$  is  $+\text{Inf}$`  `-  $\ln(0.0)$  is  $-\text{Inf}$`  `@SinceKotlin("1.2")` `public expect fun ln(x: Float): Float` `/**` Computes the common logarithm (base 10) of the value  $[x]$ . `*/` `@see [ln]` `function for special cases.` `@SinceKotlin("1.2")` `public expect fun log10(x: Float): Float` `/**` Computes the binary logarithm (base 2) of the value  $[x]$ . `*/` `@see [ln]` `function for special cases.` `@SinceKotlin("1.2")` `public expect fun log2(x: Float): Float` `/**` Computes  $\ln(a + 1)$ . `*/` `This function can be implemented to produce more precise result for  $[x]$  near zero.` `*/` `Special cases:` `-  $\ln1p(\text{NaN})$  is  $\text{NaN}$`  `-  $\ln1p(x)$  is  $\text{NaN}$  where  $x < -1.0$`  `-  $\ln1p(-1.0)$  is  $-\text{Inf}$`  `-  $\ln1p(+\text{Inf})$  is  $+\text{Inf}$`  `@see [ln]` `function` `@see [expm1]` `function` `@SinceKotlin("1.2")` `public expect fun ln1p(x: Float): Float` `/**` Rounds the given value  $[x]$  to an integer towards positive infinity. `*/` `@return the smallest Float value that is greater than or equal to the given value  $[x]$  and is a mathematical integer.` `*/` `Special cases:` `-  $\text{ceil}(x)$  is  $x$  where  $x$  is  $\text{NaN}$  or  $+\text{Inf}$  or  $-\text{Inf}$  or already a mathematical integer.` `@SinceKotlin("1.2")` `public expect fun ceil(x: Float): Float` `/**` Rounds the given value  $[x]$  to an integer towards negative infinity. `*/` `@return the largest Float value that is smaller than or equal to the given value  $[x]$  and is a mathematical integer.` `*/` `Special cases:` `-  $\text{floor}(x)$  is  $x$  where  $x$  is  $\text{NaN}$  or  $+\text{Inf}$  or  $-\text{Inf}$  or already a mathematical integer.` `@SinceKotlin("1.2")` `public expect fun floor(x: Float): Float` `/**` Rounds the given value  $[x]$  to an integer towards zero. `*/` `@return the value  $[x]$  having its fractional part truncated.` `*/` `Special cases:` `-  $\text{truncate}(x)$  is  $x$  where  $x$  is  $\text{NaN}$  or  $+\text{Inf}$  or  $-\text{Inf}$  or already a mathematical integer.` `@SinceKotlin("1.2")` `public expect fun truncate(x: Float): Float` `/**` Rounds the given value  $[x]$  towards the closest integer with ties rounded towards even integer. `*/` `Special cases:` `-  $\text{round}(x)$  is  $x$  where  $x$  is  $\text{NaN}$  or  $+\text{Inf}$  or  $-\text{Inf}$  or already a mathematical integer.` `@SinceKotlin("1.2")` `public expect fun round(x: Float): Float` `/**` Returns the absolute value of the given value  $[x]$ . `*/` `Special cases:` `-  $\text{abs}(\text{NaN})$  is  $\text{NaN}$`  `@see absoluteValue` `extension property for [Float]` `@SinceKotlin("1.2")` `public expect fun abs(x: Float): Float` `/**` Returns the sign of the given value  $[x]$ : `-1.0` if the value is negative, `0` if the value is zero, `1.0` if the value is positive `*/` `Special case:` `-  $\text{sign}(\text{NaN})$  is  $\text{NaN}$`  `@SinceKotlin("1.2")` `public expect fun sign(x: Float): Float` `/**` Returns the smaller of two values. `*/` `If either value is  $\text{NaN}$ , then the result is  $\text{NaN}$ .` `@SinceKotlin("1.2")` `public expect fun min(a: Float, b: Float): Float` `/**` Returns the greater of two values. `*/` `If either value is  $\text{NaN}$ , then the result is`

```

`NaN`.r\n *r\n@SinceKotlin("1.2")r\npublic expect fun max(a: Float, b: Float): Floatr\nr\n//
extensionsr\nr\nr\nr\n/**r\n * Raises this value to the power [x].r\n * Special cases:r\n * - `b.pow(0.0)` is
`1.0`r\n * - `b.pow(1.0) == b`r\n * - `b.pow(NaN)` is `NaN`r\n * - `NaN.pow(x)` is `NaN` for `x != 0.0`r\n *
- `b.pow(Inf)` is `NaN` for `abs(b) == 1.0`r\n * - `b.pow(x)` is `NaN` for `b < 0` and `x` is finite and not an
integerr\n *r\n@SinceKotlin("1.2")r\npublic expect fun Float.pow(x: Float): Floatr\nr\n/**r\n * Raises this
value to the integer power [n].r\n * See the other overload of [pow] for details.r\n
*r\n@SinceKotlin("1.2")r\npublic expect fun Float.pow(n: Int): Floatr\nr\n/**r\n * Returns the absolute value
of this value.r\n * Special cases:r\n * - `NaN.absoluteValue` is `NaN`r\n * @see abs functionr\n
*r\n@SinceKotlin("1.2")r\npublic expect val Float.absoluteValue: Floatr\nr\n/**r\n * Returns the sign of this
value:r\n * - `-1.0` if the value is negative,r\n * - zero if the value is zero,r\n * - `1.0` if the value is positiver\n
*r\n * Special case:r\n * - `NaN.sign` is `NaN`r\n *r\n@SinceKotlin("1.2")r\npublic expect val Float.sign:
Floatr\nr\n/**r\n * Returns this value with the sign bit same as of the [sign] value.r\n * If [sign] is `NaN` the
sign of the result is undefined.r\n *r\n@SinceKotlin("1.2")r\npublic expect fun Float.withSign(sign: Float):
Floatr\nr\n/**r\n * Returns this value with the sign bit same as of the [sign] value.r\n
*r\n@SinceKotlin("1.2")r\npublic expect fun Float.withSign(sign: Int): Floatr\nr\nr\n/**r\n * Rounds this
[Float] value to the nearest integer and converts the result to [Int].r\n * Ties are rounded towards positive
infinity.r\n * Special cases:r\n * - `x.roundToInt() == Int.MAX_VALUE` when `x > Int.MAX_VALUE`r\n
* - `x.roundToInt() == Int.MIN_VALUE` when `x < Int.MIN_VALUE`r\n * @throws
IllegalArgumentExcepion when this value is `NaN`r\n *r\n@SinceKotlin("1.2")r\npublic expect fun
Float.roundToInt(): Intr\nr\n/**r\n * Rounds this [Float] value to the nearest integer and converts the result to
[Long].r\n * Ties are rounded towards positive infinity.r\n * Special cases:r\n * - `x.roundToLong() ==
Long.MAX_VALUE` when `x > Long.MAX_VALUE`r\n * - `x.roundToLong() == Long.MIN_VALUE` when
`x < Long.MIN_VALUE`r\n * @throws IllegalArgumentExcepion when this value is `NaN`r\n
*r\n@SinceKotlin("1.2")r\npublic expect fun Float.roundToLong(): Longr\nr\nr\n// endregionr\nr\n// region
===== Integer Math =====r\nr\nr\n/**r\n * Returns the absolute value of the given value [n].r\n * Special cases:r\n * - `abs(Int.MIN_VALUE)` is
`Int.MIN_VALUE` due to an overflowr\n * @see absoluteValue extension property for [Int]r\n
*r\n@SinceKotlin("1.2")r\npublic expect fun abs(n: Int): Intr\nr\n/**r\n * Returns the smaller of two
values.r\n *r\n@SinceKotlin("1.2")r\npublic expect fun min(a: Int, b: Int): Intr\nr\n/**r\n * Returns the
greater of two values.r\n *r\n@SinceKotlin("1.2")r\npublic expect fun max(a: Int, b: Int): Intr\nr\n/**r\n * Returns the absolute value of this value.r\n * Special cases:r\n * - `Int.MIN_VALUE.absoluteValue` is
`Int.MIN_VALUE` due to an overflowr\n * @see abs functionr\n *r\n@SinceKotlin("1.2")r\npublic
expect val Int.absoluteValue: Intr\nr\n/**r\n * Returns the sign of this value:r\n * - `-1` if the value is
negative,r\n * - `0` if the value is zero,r\n * - `1` if the value is positiver\n *r\n@SinceKotlin("1.2")r\npublic
expect val Int.sign: Intr\nr\nr\n/**r\n * Returns the absolute value of the given value [n].r\n * Special
cases:r\n * - `abs(Long.MIN_VALUE)` is `Long.MIN_VALUE` due to an overflowr\n * @see
absoluteValue extension property for [Long]r\n *r\n@SinceKotlin("1.2")r\npublic expect fun abs(n: Long):
Longr\nr\n/**r\n * Returns the smaller of two values.r\n *r\n@SinceKotlin("1.2")r\npublic expect fun min(a:
Long, b: Long): Longr\nr\n/**r\n * Returns the greater of two values.r\n *r\n@SinceKotlin("1.2")r\npublic
expect fun max(a: Long, b: Long): Longr\nr\n/**r\n * Returns the absolute value of this value.r\n * Special
cases:r\n * - `Long.MIN_VALUE.absoluteValue` is `Long.MIN_VALUE` due to an overflowr\n * @see
abs functionr\n *r\n@SinceKotlin("1.2")r\npublic expect val Long.absoluteValue: Longr\nr\n/**r\n * Returns
the sign of this value:r\n * - `-1` if the value is negative,r\n * - `0` if the value is zero,r\n * - `1` if the value is
positiver\n *r\n@SinceKotlin("1.2")r\npublic expect val Long.sign: Intr\nr\nr\n//
endregionr\n",null,null,null,null,null,null,null,null], "names": [], "mappings": "AAWC,0B;EAVG,IAAI,OAAO,M
AAO,KAAI,UAAW,IAAG,MAAM,IAA1C,C;IACI,MAAM,CAAC,QAAD,EAAW,CAAC,SAAD,CAAX,EAAwB
,OAAxB,C;;QAEL,IAAI,OAAO,OAAQ,KAAI,QAAvB,C;IACD,OAAO,CAAC,MAAM,QAAP,C;;;IAGP,IAAI,O
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E/C,OAAO,W;MACX,C;KAVA,C;wGAYA,yB;MAAA,+D;MAAA,sC;QAIW,kBAAMb,gB;QAOV,Q;QAAA,2B;  
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O,O;;MAEX,OAAO,G;IACX,C;;MGz0EI,OAAO,QAAM,CAAN,EAAS,QAAM,CAAN,EAAS,CAAT,EAAY,UA  
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ACA,e;;;YAEA,c;;U6B4hHA,iB;UACA,IAAK,WAAI,OAAJ,C;;QAET,OAAO,W;MACX,C;KAIBA,C;2FAoBA,y  
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,C;;M4DgCF,6BAAS,WAAAT,C;MACA,eAAQ,W;MACR,cAAO,E;IACX,C;;MAGJ,oB;MAGmD,wD;MAG3C,oC  
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,mB;IAAA,C;;MAG5B,IAAI,CAAC,kBAAL,C;QAAoB,MAAM,6B;MAE1B,eAAO,mCAAP,EAAO,YAAP,C;MA  
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B,EAAE,SAAF,IA Ae,O;MACf,EAAE,UAAF,IAAgB,Q;MACHb,EAAE,QAAF,IA Ac,M;MACd,EAAE,SAAF,IA  
Ae,O;MACf,EAAE,kBA AF,IAAwB,gB;MACxB,EAAE,kBA AF,IAAwB,gB;MACxB,EAAE,YAAF,IAAkB,U;MA  
CIB,EAAE,gBA AF,IAAsB,c;MACtB,EAAE,eAAF,IAAqB,a;MACrB,EAAE,iBA AF,IAAuB,e;MACvB,EAAE,oB  
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kB;MAC1B,EAAE,MAAF,IAAY,I;MACZ,EAAE,QAAF,IA Ac,M;MACd,EAAE,SAAF,IA Ae,O;MACf,EAAE,YA  
AF,IAAkB,U;MACIB,EAAE,UAAF,IAAgB,Q;MAEhB,OAAO,C;IACX,C;;MAGDoC,uB;QAAA,UAAoB,K;MAA  
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SAAF,IA Ae,O;MACf,EAAE,kBA AF,IAAwB,gB;MACxB,EAAE,kBA AF,IAAwB,gB;MACxB,EAAE,YAAF,IAA  
kB,U;MACIB,EAAE,gBA AF,IAAsB,c;MACtB,EAAE,eAAF,IAAqB,a;MACrB,EAAE,iBA AF,IAAuB,e;MACvB,  
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AF,IA Ae,O;MACf,EAAE,kBA AF,IAAwB,gB;MACxB,EAAE,kBA AF,IAAwB,gB;MACxB,EAAE,YAAF,IAAkB,  
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B,U;MACIB,EAAE,gBAAF,IAAsB,c;MACtB,EAAE,eAAF,IAAqB,a;MACrB,EAAE,iBAAF,IAAuB,e;MACvB,E  
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,EAAE,SAAF,IAAe,O;MACf,EAAE,YAAF,IAAkB,U;MACIB,EAAE,UAAF,IAAgB,Q;MAEhB,OAAO,C;IACX,  
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c,M;MACd,EAAE,SAAF,IAAe,O;MACf,EAAE,eAAF,IAAqB,a;MACrB,EAAE,SAAF,IAAe,O;MACf,EAAE,UA  
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B,KAApB,CAAJ,EAAgC,OOAhC,C;IAAT,C;;MAE1C,eAAS,aAAI,2BAAqB,KAArB,CAAJ,EAAiC,OOAjC,C;IA  
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,C;MAAF,C;IAAA,C;;MAAT,oCAAS,sBAAT,C;IAAA,C;8FAErG,yB;MAAA,kD;M9IhBA,kC;MAAA,0C;;QAQ  
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IAFW,C;;MAK/B,IAAI,cAAQ,CAAZ,C;QACI,MAAM,6B;MACV,6B;MACA,OAAO,aAAS,O;IACpB,C;;MAGI,  
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ACT,6B;;IAER,C;;MAGI,a;MACA,OAAO,aAAS,O;IACpB,C;;MAGI,a;MACA,OAAO,aAAS,U;IACpB,C;;MAP  
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C,CAAR,EAAqB,SAkI+B,CAII/B,CAArB,C;;UAIId,W;QADO,C;MAAA,C;MARf,kD;QAQI,oCAAW,wDAAX,C  
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C;UAA2C,K;QAC3C,YAAy,sBAAQ,SAAR,EAAMb,aAAnB,EAakC,UAAIC,C;;MACP,sBAAa,EAAb,C;MAET  
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B;MAC9B,aAC+B,gB;MAC/B,YAC8B,gB;MAC9B,aAC+B,gB;MAC/B,eACiC,gB;MACjC,iBACmC,gB;MACnC  
,sBACwC,gB;MACxC,uBACyC,gB;MACzC,kBACoC,gB;MACpC,cACgC,gB;MAChC,iBACmC,gB;MACnC,iB  
ACmC,gB;MACnC,iBACmC,gB;MACnC,YAC8B,gB;MAC9B,aAC+B,iB;MAC/B,aAC+B,iB;MAC/B,uBACyC,i  
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;MAEF,wB;MAAhC,oB;MACnB,eAAoB,C;IADF,C;MAEO,sBAAQ,YAAM,O;IAAd,C;MACgC,Q;MAA9B,IA  
AI,eAAQ,YAAM,OAAlB,C;QAAA,O7BONO,U6B1NiB,aAAM,mBAAN,EAAM,2BAAN,O7BONjB,C;Q6B1N+  
C,MAAM,2BAAuB,YAAM,WAA7B,C;IAA5D,C;MAMtB,Q;MAAL,IAAI,eAAC,0EAAD,QAAJ,C;QAAiC,OA  
AO,K;MAExC,OAae,WAAR,YAAQ,EAAS,O7BmHO,K6BnHhB,C;IACnB,C;MAGY,Q;MAA2B,gBAA3B,gE;  
MAA2B,c;QZw4CvB,U;QADhB,IAAI,wCAAsB,mBAA1B,C;UAAqC,aAAO,I;UAAP,e;QACrB,6B;QAAhB,OA  
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BzxCF,K6B/GiC,C;UZw4C9C,IAAI,OAAJ,C;YAAyB,aAAO,K;YAAP,e;QAC/C,aAAO,I;MYz4CH,iB;IACJ,C  
;MAEkC,OAAA,IAAK,QAAQ,OAAb,KAAqB,C;IAArB,C;MA7CIC,oD;MACgC,uBAAK,cAAU,IAAV,CAAL,  
C;MADhC,Y;IAAA,C;MAPJ,OAKqB,qDALrB,M;IAAA,C;MAAA,c;MAKqB,wD;MALrB,a;IAAA,C;MAAA  
,2IAKqB,0CALrB,G;IAAA,C;gFAuDA,yB;MAAA,yC;QAWsC,wB;UAAW,OAAA,aAAK,KAAL,C7B8FV,K;Q6  
B9FD,C;MAAA,C;MAXtC,6B;QAWI,OAAO,oBAAW,+BAAU,IAAV,GAAGB,uBAAhB,CAAX,C;MACX,C;KA  
ZA,C;MAiBqE,e;IAAA,C;M5BjEjE,4B;MAFwD,gB;IAAnC,C;MAErB,8B;MACI,iBAGmC,SAAK,CAAL,C;M  
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BAAY,IAAK,KAAjB,EAAuB,KAAM,KAA7B,C;MAAA,C;KAPIE,C;oGASA,yB;MAyKA,kBAS6D,sB;MAT7D,+B;M+B1KA,gD;M/BCA,wB;QAM0D,O+BAS,aAAkB,C/B4KhD,eAAW,oBAAL,SAAK,CAAL,iBAAN,C+B5K gD,MAAIB,E/BAgB,K+BAC,KAA9B,C;M/BAT,C;KAN1D,C;0FAQA,yB;MD+IA,6B;MC/IA,wB;QAEsD,OAMD ,cAAK,IAAK,KAAK,GAAW,CDgJ5C,cCtJ6B,KDsJnB,KAAL,GAAiB,GAAtB,CChJ4C,MAAX,IAAf,C;MANC, C;KAFtD,C;0FAGA,yB;MC6IA,6B;MD7IA,wB;QAEuD,OAGF,cAAK,IAAK,KAAK,GAAW,CCiJ5C,cDpJ8B,K CoJpB,KAAL,GAAiB,KAAtB,CDjJ4C,MAAX,IAAf,C;MAHE,C;KAFvD,C;0FAGA,yB;MAAA,6B;MAAA,wB;Q AEqD,qBAAK,IAAK,KAAK,GAAK,KAAM,KAAX,IAAf,C;MAAA,C;KAFrD,C;0FAGA,yB;MAwJA,kBAS6D,s B;MAT7D,+B;MAXJA,wB;QAEuD,O+BAA,eAAW,C/B+J7B,eAAW,oBAAL,SAAK,CAAL,iBAAN,C+B/J6B,M AAK,K/BAI,K+BAO,KAAZ,CAAhB,C;M/BAA,C;KAFvD,C;4FAIA,yB;MDkIA,6B;MCIIA,wB;QAEuD,OAMD, cAAK,IAAK,KAAK,GAAZ,CDmI9C,cCzI+B,KDyIrB,KAAL,GAAiB,GAAtB,CCnI8C,MAAZ,IAAf,C;MANC,C; KAFvD,C;4FAGA,yB;MCgIA,6B;MDhIA,wB;QAEwD,OAGF,cAAK,IAAK,KAAK,GAAZ,CCoI9C,cDvIgC,KCu ItB,KAAL,GAAiB,KAAtB,CDpI8C,MAAZ,IAAf,C;MAHE,C;KAFxD,C;4FAGA,yB;MAAA,6B;MAAA,wB;QAE sD,qBAAK,IAAK,KAAK,GAAK,KAAM,KAAM,KAAZ,IAAf,C;MAAA,C;KAFtD,C;4FAGA,yB;MA2IA,kBAS6D,sB;M AT7D,+B;MA3IA,wB;QAEwD,O+BAA,eAAW,C/BkI9B,eAAW,oBAAL,SAAK,CAAL,iBAAN,C+BIJ8B,MAAK ,U/BAK,K+BAO,KAAZ,CAAhB,C;M/BAA,C;KAFxD,C;4FAIA,yB;MDqHA,6B;MCRHA,wB;QAEuD,OAMD,cA Ae,YAAV,IAAK,KAAK,EAAY,CDsH9C,cC5H+B,KD4HrB,KAAL,GAAiB,GAAtB,CCtH8C,MAAZ,CAAf,C;M ANC,C;KAFvD,C;4FAGA,yB;MCmHA,6B;MDnHA,wB;QAEwD,OAGF,cAAe,YAAV,IAAK,KAAK,EAAY,CCu H9C,cD1HgC,KC0HtB,KAAL,GAAiB,KAAtB,CDvH8C,MAAZ,CAAf,C;MAHE,C;KAFxD,C;4FAGA,yB;MAA A,6B;MAAA,wB;QAEsD,qBAAE,YAAV,IAAK,KAAK,EAAM,KAAM,KAAZ,CAAf,C;MAAA,C;KAFtD,C;4FA GA,yB;MA8HA,kBAS6D,sB;MAT7D,+B;MA9HA,wB;QAEwD,O+BAA,eAAW,C/BqI9B,eAAW,oBAAL,SAAK, CAAL,iBAAN,C+BrI8B,MAAK,U/BAK,K+BAO,KAAZ,CAAhB,C;M/BAA,C;KAFxD,C;wFAIA,yB;MDwGA,6 B;MCIGA,4C;MANA,wB;QAEqD,OAMD,WAAW,IAAX,EDyGjB,cC/G2B,KD+GjB,KAAL,GAAiB,GAAtB,CCz GiB,C;MANC,C;KAFrD,C;wFAGA,yB;MCsGA,6B;MDnGA,4C;MAHA,wB;QAEsD,OAGF,WAAW,IAAX,EC0 GjB,cD7G4B,KC6GIB,KAAL,GAAiB,KAAtB,CD1GiB,C;MAHE,C;KAFtD,C;wFAGA,yB;MAAA,4C;MAAA,w B;QAEoD,kBAAW,IAAX,EAAiB,KAAjB,C;MAAA,C;KAFpD,C;wFAGA,yB;MAiHA,kBAS6D,sB;MAT7D,+B; M+BjHA,8C;M/BAA,wB;QAEsD,O+BAA,Y/BwHjB,eAAW,oBAAL,SAAK,CAAL,iBAAN,C+BxHiB,E/BAmB, K+BAnB,C;M/BAA,C;KAFtD,C;wFAIA,yB;MD2FA,6B;MCRFA,kD;MANA,wB;QAEqD,OAMD,cAAc,IAAd,ED 4FjB,cCIG2B,KDkGjB,KAAL,GAAiB,GAAtB,CC5FiB,C;MANC,C;KAFrD,C;wFAGA,yB;MCyFA,6B;MDtFA,k D;MAHA,wB;QAEsD,OAGF,cAAc,IAAd,EC6FjB,cDhG4B,KCgGIB,KAAL,GAAiB,KAAtB,CD7FiB,C;MAHE, C;KAFtD,C;wFAGA,yB;MAAA,kD;MAAA,wB;QAEoD,qBAAc,IAAd,EAAoB,KAApB,C;MAAA,C;KAFpD,C; wFAGA,yB;MAoGA,kBAS6D,sB;MAT7D,+B;M+BpGA,oD;M/BAA,wB;QAEsD,O+BAA,e/B2GjB,eAAW,oBA AL,SAAK,CAAL,iBAAN,C+B3GiB,E/BAmB,K+BAnB,C;M/BAA,C;KAFtD,C;wEIA,yB;MAAA,6B;MAAA,m B;QAEyC,qBAAK,SAAK,QAAY,C;MAAA,C;KAFzC,C;wEAGA,yB;MAAA,6B;MAAA,mB;QAEyC,qBAAK,S AAK,QAAY,C;MAAA,C;KAFzC,C;gGAIA,yB;MAAA,8C;MAAA,wB;QAE6D,0BAAU,IAAV,EAAGB,KAHhB, C;MAAA,C;KAF7D,C;wFAIA,yB;MAAA,6B;MAAA,2B;QAEEmD,qBAAK,aAAS,QAAd,C;MAAA,C;KAFnD,C; wFAGA,yB;MAAA,6B;MAAA,2B;QAEEmD,qBAAK,cAAU,QAaf,C;MAAA,C;KAFnD,C;wFAGA,yB;MAAA,6 B;MAAA,wB;QAEiD,qBAAK,IAAK,KAAL,GAAc,KAAM,KAazB,C;MAAA,C;KAFjD,C;SFAGA,yB;MAAA,6 B;MAAA,wB;QAEgD,qBAAK,IAAK,KAAL,GAAa,KAAM,KAaxB,C;MAAA,C;KAFhD,C;wFAGA,yB;MAAA, 6B;MAAA,wB;QAEiD,qBAAK,IAAK,KAAL,GAAc,KAAM,KAazB,C;MAAA,C;KAFjD,C;wEAGA,yB;MAAA, 6B;MAAA,mB;QAEgC,qBAAU,CAAL,SAAL,C;MAAA,C;KAFhC,C;8EAIA,yB;MAAA,0B;MAAA,mB;QAUm C,OAAK,OAAL,SAAK,C;MAAL,C;KAVnC,C;gFAWA,yB;MAAA,4B;MAAA,mB;QAUqC,OAAK,QAAL,SA AAK,C;MAAL,C;KAVrC,C;MAoBiC,gB;IAAA,C;8EACjC,yB;MAAA,kBASqD,sB;MATrD,mB;QASmC,OAAK,oB AAL,SAAK,CAAL,iB;MAAA,C;KATnC,C;gFAWA,yB;MDoEJ,0B;MAAA,+B;MCPeI,mB;QASqC,ODsEA,eAA W,OCtEX,SDsEW,CAAX,C;MctEA,C;KATrC,C;kFAUA,yB;MC2DJ,4B;MAAA,iC;MD3DI,mB;QASuC,OC6DA ,gBAAY,QD7DZ,SC6DY,CAAZ,C;MD7DA,C;KATvC,C;MAYmC,W;IAAA,C;gFACnC,yB;MAAA,kBAS6D,sB ;MAT7D,+B;MAAA,mB;QASqC,sBAAW,oBAAL,SAAK,CAAL,iBAAN,C;MAAA,C;KATrC,C;gFAWA,yB;MA SA,gD;MATA,mB;QAQqC,OAoe,aAAa,SAAb,C;MAPF,C;KARrC,C;kFASA,yB;MAAA,gD;MAAA,mB;QAMu C,oBAAa,SAAb,C;MAAA,C;KANvC,C;MAQyC,OArDD,oBAAL,SAAK,CAAL,iBAqDe,W;IAAT,C;:::;MAzP7

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AhB,C;MAHD,C;KAFtD,C;4FAGA,yB;MAAA,+B;MAAA,wB;QAEuD,sBAAM,IAAK,KAAK,KAAK,KAAM,K  
AAX,CAAhB,C;MAAA,C;KAFvD,C;8FAIA,yB;MhC4IA,WAS6D,wB;MAT7D,+B;MgC5IA,wB;QAEwD,OASA,  
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AhB,C;MATA,C;KAFxD,C;8FAGA,yB;M9B0IA,aAS6D,0B;MAT7D,+B;M8B1IA,wB;QAEyD,OAMD,eAAM,IA  
AK,KAAK,UAAy,C9B2I/C,eAAW,oB8BjJoB,K9BiJzB,KAAK,CAAL,YAAN,C8B3I+C,MAAZ,CAAhB,C;MAN  
C,C;KAFzD,C;8FAGA,yB;M/B8IA,kBAS6D,sB;MAT7D,+B;M+B9IA,wB;QAEuD,OAGC,eAAM,IAAK,KAAK,  
UAAy,C/BkJ/C,eAAW,oB+BrJkB,K/BqJvB,KAAK,CAAL,iBAAN,C+BIJ+C,MAAZ,CAAhB,C;MAHD,C;KAFv  
D,C;8FAGA,yB;MAAA,+B;MAAA,wB;QAEwD,sBAAM,IAAK,KAAK,UAAy,KAAM,KAAZ,CAAhB,C;MAA  
A,C;KAFxD,C;8FAIA,yB;MhC+HA,WAS6D,wB;MAT7D,+B;MgC/HA,wB;QAEwD,OASA,eAAM,IAAK,KAA  
K,UAAy,ChC6H/C,eAAW,oBgCtImB,KhCsIxB,KAAK,CAAL,UAAN,CgC7H+C,MAAZ,CAAhB,C;MATA,C;K  
AFxD,C;8FAGA,yB;M9B6HA,aAS6D,0B;MAT7D,+B;M8B7HA,wB;QAEyD,OAMD,eAAM,IAAK,KAAK,UAA  
y,C9B8H/C,eAAW,oB8BpIoB,K9BoIzB,KAAK,CAAL,YAAN,C8B9H+C,MAAZ,CAAhB,C;MANC,C;KAFzD,C  
;8FAGA,yB;M/BiIA,kBAS6D,sB;MAT7D,+B;M+BjIA,wB;QAEuD,OAGC,eAAM,IAAK,KAAK,UAAy,C/BqI/C,  
eAAW,oB+BxIkB,K/BwIvB,KAAK,CAAL,iBAAN,C+BrI+C,MAAZ,CAAhB,C;MAHD,C;KAFvD,C;8FAGA,yB;  
MAAA,+B;MAAA,wB;QAEwD,sBAAM,IAAK,KAAK,UAAy,KAAM,KAAZ,CAAhB,C;MAAA,C;KAFxD,C;0  
FAIA,yB;MhCkHA,WAS6D,wB;MAT7D,+B;MgCzGA,8C;MATA,wB;QAEsD,OASA,YAAy,IAAZ,EhCgHjB,e  
AAW,oBgCzHe,KhCyHpB,KAAK,CAAL,UAAN,CgChHiB,C;MATA,C;KAFtD,C;0FAGA,yB;M9BgHA,aAS6D,  
0B;MAT7D,+B;M8B1GA,8C;MANA,wB;QAEuD,OAMD,YAAy,IAAZ,E9BiHjB,eAAW,oB8BvHgB,K9BuHrB,  
KAAK,CAAL,YAAN,C8BjHiB,C;MANC,C;KAFvD,C;0FAGA,yB;M/BoHA,kBAS6D,sB;MAT7D,+B;M+BjHA,  
8C;MAHA,wB;QAEqD,OAGC,YAAy,IAAZ,E/BwHjB,eAAW,oB+B3Hc,K/B2HnB,KAAK,CAAL,iBAAN,C+Bx  
HiB,C;MAHD,C;KAFrD,C;0FAGA,yB;MAAA,8C;MAAA,wB;QAEsD,mBAAy,IAAZ,EAakB,KAAIB,C;MAAA  
,C;KAFtD,C;0FAIA,yB;MhCqGA,WAS6D,wB;MAT7D,+B;MgC5FA,oD;MATA,wB;QAEsD,OASA,eAAe,IAAf,  
EhCmGjB,eAAW,oBgC5Ge,KhC4GpB,KAAK,CAAL,UAAN,CgCnGiB,C;MATA,C;KAFtD,C;0FAGA,yB;M9B  
mGA,aAS6D,0B;MAT7D,+B;M8B7FA,oD;MANA,wB;QAEuD,OAMD,eAAe,IAAf,E9BoGjB,eAAW,oB8B1GgB  
,K9B0GrB,KAAK,CAAL,YAAN,C8BpGiB,C;MANC,C;KAFvD,C;0FAGA,yB;M/BuGA,kBAS6D,sB;MAT7D,+B  
;M+BpGA,oD;MAHA,wB;QAEqD,OAGC,eAAe,IAAf,E/B2GjB,eAAW,oB+B9Gc,K/B8GnB,KAAK,CAAL,iBAA  
N,C+B3GiB,C;MAHD,C;KAFrD,C;0FAGA,yB;MAAA,oD;MAAA,wB;QAEsD,sBAAe,IAAf,EAAqB,KAArB,C;  
MAAA,C;KAFtD,C;0EAIA,yB;MAAA,+B;MAAA,mB;QAE0C,sBAAM,SAAK,MAAX,C;MAAA,C;KAF1C,C;0  
EAGA,yB;MAAA,+B;MAAA,mB;QAE0C,sBAAM,SAAK,MAAX,C;MAAA,C;KAF1C,C;kGAIA,yB;MAAA,gD;  
MAAA,wB;QAE+D,2BAAW,IAAX,EAAiB,KAAjB,C;MAAA,C;KAF/D,C;0FAIA,yB;MAAA,+B;MAAA,2B;QA  
EoD,sBAAM,oBAAS,QAAT,CAAN,C;MAAA,C;KAFpD,C;0FAGA,yB;MAAA,+B;MAAA,2B;QAEoD,sBAAM,  
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AEiC,sBAAM,SAAK,MAAX,C;MAAA,C;KAFjC,C;gFAIA,yB;MAAA,0B;MAAA,mB;QAUmC,OAAK,OAAL,S  
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rC,C;MAqBiC,OAAA,SAAK,Q;IAAL,C;MAUE,gB;IAAA,C;kFAEnC,yB;MhC+EJ,0B;MAAA,+B;MgC/El,mB;  
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BtEI,mB;QASuC,O9BwEC,gBAAY,Q8BxEb,S9BwEa,SAAZ,C;M8BxED,C;KATvC,C;gFAUA,yB;M/BqEJ,6B;M  
+BrEI,mB;QASmC,O/BuEC,c+BvED,S/BuEW,QAAV,C;M+BvED,C;KATnC,C;;MAYqC,W;IAAA,C;kFAErC,y  
B;MASA,kD;MATA,mB;QAQqC,OASE,cAAc,SAAd,C;MATF,C;KARrC,C;ofASA,yB;MAAA,kD;MAAA,mB;  
QAQuC,qBAAc,SAAd,C;MAAA,C;KARvC,C;;MAUyC,qBAAc,SAAd,C;IAAA,C;;;;;MA5P7C,c;MAG6D,qD;M  
AH7D,a;IAAA,C;;MAAA,2IAG6D,oCAH7D,G;IAAA,C;wEAgQA,yB;MAAA,+B;MAAA,4B;QAW0C,sBAAW,o  
BAAL,SAAK,CAAX,C;MAAA,C;KAX1C,C;0EAYA,yB;MAAA,+B;MAAA,4B;QAW2C,sBAAW,oBAAL,SAA  
K,CAAX,C;MAAA,C;KAX3C,C;0EAYA,yB;MAAA,+B;MAAA,4B;QAWyC,sBAAW,oBAAL,SAAK,CAAX,C;  
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SP,C;IDhSO,C;;MASzC,aAAQ,KAAR,IAAiB,KC8Kc,K;ID7KnC,C;;MAGsC,OAAA,YAAQ,O;IAAR,C;;MAGm  
B,+BAAS,YAAT,C;IAAA,C;;MAEF,wB;MAAhC,oB;MACnB,eAAoB,C;IADF,C;;MAEO,sBAAQ,YAAM,O;IAA  
d,C;;MACgC,Q;MAA9B,IAAI,eAAQ,YAAM,OAAIB,C;QAAA,OC2QO,UD3QiB,aAAM,mBAAN,EAAM,2BAA  
N,OC2QjB,C;;QD3Q+C,MAAM,2BAAuB,YAAM,WAA7B,C;IAA5D,C;;MAMtB,Q;MAAL,IAAI,eAAC,0EAA  
D,QAAJ,C;QAAiC,OAAO,K;MAExC,OAAe,WAAR,YAAQ,EAAS,OC0JO,KD1JhB,C;IACnB,C;;MAGY,Q;MA  
A2B,gBAA3B,gE;MAA2B,c;;Qdw4CvB,U;QADhB,IAAI,wCAAsB,mBAA1B,C;UAAqC,aAAO,I;UAAp,e;;QACr  
B,6B;QAAhB,OAAgB,gBAAhB,C;UAAgB,2B;Ucx4C6B,2Bdw4CR,Ocx4CQ,Q;UAAA,W;YAAuB,oBAAR,YAA  
Q,Edw4C/B,OelvCF,KDtJiC,C;;Udw4C9C,IAAI,OAAJ,C;YAAyB,aAAO,K;YAAP,e;;QAC/C,aAAO,I;;Mcz4CH,  
iB;IACJ,C;;MAEkC,OAAA,IAAK,QAAQ,OAAb,KAAqB,C;IAArB,C;;MA7CIC,oD;MACgC,uBAAK,iBAAU,IA  
AV,CAAL,C;MADhC,Y;IAAA,C;;;;;MAPJ,OAKqB,qDALrB,M;IAAA,C;;MAAA,c;MAKqB,wD;MALrB,a;IAAA  
,C;;MAAA,2IAKqB,OCALrB,G;IAAA,C;gFAuDA,yB;MAAA,yC;;QAWsC,wB;UAAW,OAAA,aAAK,KAAL,CC  
qIV,K;QDrID,C;MAAA,C;MAXtC,6B;QAWI,OAAO,oBAAW,kBAAU,IAAV,EAAGB,uBAAhB,CAAX,C;MAC  
X,C;KAZA,C;;MAiBqE,e;IAAA,C;;M+J9CjE,kC;MAjByD,4BAAiB,KAAjB,EAawB,YAAxB,K;IAAtC,C;;MACe  
,iB;IAAA,C;;MACO,gB;IAAA,C;;MAEM,W9J+CoB,a8J/CpB,U9J+CSc,KAAIB,E8J/CX,K9J+CyC,KAA9B,C8J/  
CpB,K;MAAA,S;QAAkB,O9J+CE,a8J/CF,K9J+CoB,KAAIB,E8J/CO,S9J+CuB,KAA9B,C8J/CF,K;;MAAIB,W;IA  
AA,C;;MAEb,O9J6CiC,a8J7CjC,U9J6CmD,KAAIB,E8J7CzB,S9J6CuD,KAA9B,C8J7CjC,I;IAAA,C;;MAItB,UA  
AwB,M;MADhC,8CAAwB,kBAAa,KAAM,UAAAnB,KACbB,2CAAS,KAAM,MAAf,cAAwB,6CAAQ,KAAM,KA  
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,CAAN,CASyB,MAApB,CAAN,CAqCIB,MAAK,Q8JvKV,I;IAAxB,C;;MAE8B,OAAE,UAAF,qBAAU,S;IAAV,  
C;;MAEIC,oC;MACI,aAC+B,iBAAW,6BAAM,UAAjB,EAA4B,6BAAM,UAAIC,C;IAFnC,C;;MAAA,2C;QAA  
A,0B;;MAAA,oC;IAAA,C;;MAmDA,wC;MAjCI,IAAI,gBAAJ,C;QAAwB,MAAa,gCAAYB,wBAAzB,C;MACrC,  
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AiC,YAAjC,EAA+C,IAA/C,C;MAEzB,YAGwB,I;IAvB5B,C;;MAyB6C,oCAAYB,UAAzB,EAAgC,SAAhC,EAAs  
C,SAAtC,C;IAAA,C;;MAGJ,OAAI,uBAAO,CAAX,G9JN8B,a8JMhB,U9JNkC,KAAIB,E8JMR,S9JNsC,KAA9B,  
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AAxB,KAA8C,kBAAQ,KAAM,KAAd,CADxB,CAA9B,C;IAAA,C;;MAIA,OAAI,cAAJ,GAAe,EAaf,GAAwB,O  
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,6BAAU,EAAV,CAAV,CAAyB,QAA9G,I;IAAxB,C;;MAE8B,OAAI,uBAAO,CAAX,GAAgB,UAAF,qBAAU,SA  
AV,cAAqB,SAArB,WAAAd,GAAgD,UAAF,2BAAgB,SAAhB,cAA6B,SAAD,aAA5B,W;IAA9C,C;;MAEIC,0C;IA  
AA,C;;MASmG,4BAAiB,UAAjB,EAA6B,QAA7B,EAAuC,IAAvC,C;IAAA,C;;;;;MATnG,iD;QAAA,gC;;MAAA,  
0C;IAAA,C;;MAoB4E,wB;MAC5E,sBAA2B,I;MAC3B,iBAAmC,kBAAO,CAA1C,G9JvCmE,a8JuCtB,K9JvCw  
C,KAAIB,E8JuCb,I9JvC2C,KAA9B,C8JuCtB,KAA7C,G9JvCmE,a8JuCH,K9JvCqB,KAAIB,E8JuCM,I9JvCwB,K  
AA9B,C8JuCH,K;MACHe,c9J4MsC,U8J5MnB,I9J4MmB,C;M8J3MtC,cAAuB,cAAJ,GAAa,KAAb,GAAwB,mB;I

AJT,C;;MAMA,qB;IAAA,C;;MAG9B,YAA Y,W;MACZ,IAAI,6BAAS,mBAAT,QAAJ,C;QACI,IAAI,CAAC,cAA  
L,C;UAAc,MAAA,6B;QAC3B,iBAAU,K;;;QAEV,c9JtC+C,U8JsC/C,W9JtC0D,KAAK,K8JsCvD,W9JtCkE,KAAX  
,CAAhB,C;;M8JwCnD,OAAO,K;IACX,C;;wECpHJ,yB;MAAA,8C;MAAA,uB;QAOI,OAAO,MAAM,CAAN,EA  
AS,CAAT,C;MACX,C;KARA,C;wEAUUA,yB;MAAA,8C;MAAA,uB;QAOI,OAAO,MAAM,CAAN,EAAS,CAAT,  
C;MACX,C;KARA,C;wEAUUA,yB;MAAA,8C;MAAA,uB;QAOI,OAAO,MAAM,CAAN,EAAS,CAAT,C;MACX,  
C;KARA,C;wEAUUA,yB;MAAA,8C;MAAA,uB;QAOI,OAAO,MAAM,CAAN,EAAS,CAAT,C;MACX,C;KARA,  
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AU,gCAAV,C;IAAxB,C;;MAGD,OPwSZ,SAvGI,oBOjMS,EPiMd,KAAK,CAAL,iBOjMc,KPiMT,oBOjMuB,EPi  
M5B,KAAK,CAAL,iBOjMc,CPwSH,QAAV,C;IOxSY,C;;MAEG,OPsSf,SAvGI,oBO/LY,EP+LjB,KAAK,CAAL,i  
BO/LiB,QP+LZ,oBO/L0B,EP+L/B,KAAK,CAAL,iBO/LiB,CPsSN,QAAV,C;IOtSe,C;;MAONd,eAAe,EwByLoB,  
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IB,ExB3C/C,EwB2C6E,KAA9B,CxB3CpD,IAAJ,GAAa,aAAb,GAA2B,a;;MAItC,IAAI,uBAA Y,CAAhB,C;QACI,  
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CAAIC,C;MACf,UAAU,kBAAW,kBAAW,OAAX,CAAX,C;MACV,OAAO,UAAM,iCwBgCsD,aAAkB,CxBhCz  
D,UAAM,GAAN,CwBgCyD,MAAIB,EAA8B,CxBhCvD,UAAM,OAAN,CwBgCuD,MAA9B,CxBhCvC,KAAJ,G  
AAkC,CAAIC,GAAyC,CAAPD,EAAN,C;IAEX,C;;MAOe,Q;MAHX,eAAe,EwBqKoB,K;MxBpKnC,cAAc,EwBo  
KqB,K;MxBnKnC,IAAI,qBAAU,CAAd,C;QACW,lwBuBwD,axBvBpD,EwBuBsE,KAAIB,ExBvB/C,EwBuB6E,  
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AZ,CAAhB,C;;QxBjDpD,W;;MAQJ,IAAI,uBAA Y,CAAhB,C;QACI,OAAO,UAAM,gBAAW,OAAX,CAAN,C;;  
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AFyC,OAEP,4BAAK,U;;UACvC,SP8LuC,aO9LIC,4BAAK,UP8L0C,KAAb,CO9LvC,C;YAHyC,OAGP,4BAAK,  
U;eACvC,SAAK,UAAL,C;YAJyC,OPyON,SO rOX,YAAF,CAAE,CPqOW,C;;;YOzOM,OPcY,SAAU,CA2N5B,S  
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OK,OwBQY,UAAW,CAuO5B,UxBxOF,uBAA3B,IAAI,oBAAuB,CwBwOE,CAvO4B,MAAK,KAAW,CxBdzB,g  
CwBCyB,MAAX,CAAhB,C;;;IxBRZ,C;;MAYH,QAAC,CAAqB,GAAf,UAAP,IAAmC,CAAC,MAAO,EA AW,IA  
AJ,EAAf,IAAgC,C;IAAnE,C;;MAGE,OAAC,qBAAO,EAAP,CAAW,WAAZ,GAAyB,IAAZB,GAAiC,YAAjC,W;I  
AAA,C;;MAGA,uBAAc,CAAd,EAAiB,EAAjB,C;IAAA,C;;MAG1C,IAAI,gBAAK,CAAT,C;QAAY,OAAS,WAA  
F,CAAE,EAAS,IAAT,C;MAErB,eAAiB,qBAAO,CAAP,CAAD,yBAAa,IAAb,EAAD,WAAwB,CAAxB,C;MACf,  
UAAU,WAAI,sCAAW,IAAX,EA AJ,C;MACV,IAAI,kBAAO,IAAX,C;QACI,uCAA O,IAAP,E;QACA,4CAAY,C  
AAZ,E;;MAEJ,OAAGB,WAA T,QAAS,EAAS,IAAT,CAAT,GAA8B,WAAJ,GAAL,EAAS,IAAT,C;IACzC,C;oFw  
LhGA,yB;MAAA,gD;MAAA,4B;QAO6C,OAAQ,a/LsLhB,c+LlLgB,C;MAAR,C;KAP7C,C;oGASA,yB;MtFuCA,i  
B;MsFvCA,4B;QAOqD,OtFuCqB,azGsIrC,cyGtIqC,C;MsFvCrB,C;KAPrD,C;sGASA,yB;MAAA,kE;MAAA,4B;Q  
AOsD,OAAQ,sB/LoKzB,c+LpKyB,C;MAAR,C;KAPtD,C;8FASA,yB;MAAA,0D;M/L6PA,6B;M+L7PA,4B;QAQ  
mD,O/L+PZ,c+L/PoB,kB/L0JtB,c+L1JsB,C/L+PpB,C;M+L/PY,C;KARnD,C;4FAUA,yB;MAAA,wD;M/LmPA,6B  
;M+LnPA,4B;QAQkD,O/LqPX,c+LrPmB,iB/LgJrB,c+LhJqB,C/LqPnB,C;M+LrPW,C;KARID,C;gFAUA,yB;MA  
AA,4C;M/LyOA,6B;M+LzOA,sC;QAcYD,O/LqOIB,c+LrO0B,W/LgI5B,c+LhI4B,EA AW,QAAX,C/LqO1B,C;M+  
LrOkB,C;KAdzD,C;kFAiBA,yB;MAAA,8C;M/LwNA,6B;M+LxNA,sC;QAc0D,O/LoNnB,c+LpN2B,Y/L+G7B,c+  
L/G6B,EAAY,QA AZ,C/LoN3B,C;M+LpNmB,C;KAd1D,C;oFAiBA,yB;MAAA,gD;MAAA,4B;QAO8C,OAAS,ah  
KgHhB,cgKhHgB,C;MAAT,C;KAP9C,C;oGASA,yB;MAAA,gE;MAAA,4B;QAOsD,OAAS,qBhKuGxB,cgKvGw  
B,C;MAAT,C;KAPtD,C;sGASA,yB;MAAA,kE;MAAA,4B;QAOuD,OAAS,sBhK8FzB,cgK9FyB,C;MAAT,C;KA  
PvD,C;8FASA,yB;MAAA,0D;MhK2LA,+B;MgK3LA,4B;QAQqD,OhK6LX,egK7LoB,kBhKofvB,cgKpFuB,ChK  
6LpB,C;MgK7LW,C;KARrD,C;4FAUA,yB;MAAA,wD;MhKiLA,+B;MgKjLA,4B;QAQoD,OhKmLV,egKnLmB,i

BhK0EtB, cgK1EsB, ChKmLnB, C; MgKnLU, C; KARpD, C; +EAUA, yB; MAAA, 4C; MhKuKA, +B; MgKvKA, sC; QAc2D, OhKmKjB, egKnK0B, WhK0D7B, cgK1D6B, EAAW, QAAX, ChKmK1B, C; MgKnKiB, C; KAd3D, C; iFAGBA, yB; MtFoDA, 4C; M1EmGA, +B; MgKvJA, sC; QAc4D, OhKmJlB, e0EhGuB, W1ET1B, c0ES0B, EAAW, CsFnDK, QtFmDL, IAAX, C1EgGvB, C; MgKnJkB, C; KAd5D, C; oFAGBA, yB; MhM8Cl, 6B; MgM9MJ, gD; MAgKA, 4B; QA08C, OAhKO, a/LsLhB, CD0BE, cAAU, cAAL, GAAiB, GAAiB, CC1BF, M+LtlgB, C; MAgKP, C; KAP9C, C; oGASA, yB; MtFzHA, iB; MsFyHA, 4B; QA0sD, OtFzHoB, a1G0GnC, cwLde, GAAY, G9E5FQ, C8E4FrB, GAA6C, EAA7C, I; MQ6BC, C; KAPtD, C; sGASA, yB; MR7BA, kE; MQ6BA, 4B; QA0uD, OR9BkB, sBxLMiC, cwLNGB, GAAW, GAAO, C; MQ8BIB, C; KAPvD, C; 8FASA, yB; MAAA, 0D; MhMkFA, 0B; MAAA, +B; MgMIFA, 4B; QAQqD, OhMqFZ, eAAW, OgMrFS, kBhMdnB, cAAL, GAAiB, GgMcO, ChMqFT, CAAX, C; MgMrFY, C; KARrD, C; 4FAUA, yB; MAAA, wD; MhMwEA, 0B; MAAA, +B; MgMxEA, 4B; QAQoD, OhM2EX, eAAW, OgM3EQ, iBhMxBIB, cAAL, GAAiB, GgMwBM, ChM2ER, CAAX, C; MgM3EW, C; KARpD, C; gFAWA, yB; MAAA, 4C; MhMsCA, +B; MgMtCA, sC; QAc2D, OhMkCjB, egMIC0B, WhM7D7B, cgM6D6B, EAAW, QAAX, ChMkC1B, C; MgMICiB, C; KAd3D, C; kFAGBA, yB; MAAA, 8C; MhMsBA, +B; MgMtBA, sC; QAc4D, OhMkBiB, egMIB2B, YhM7E9B, cgM6E8B, EAAY, QAAZ, ChMk3B3B, C; MgMIBkB, C; KAd5D, C; oFAGBA, yB; M9LjCl, 6B; M8L/MJ, gD; MAgPA, 4B; QA0+C, OAhPM, a/LsLhB, CC2BE, cAAU, cAAL, GAAiB, KAAtB, CD3BF, M+LtlgB, C; MAgPN, C; KAP/C, C; oGASA, yB; MtFzMA, iB; MsFyMA, 4B; QA0uD, OtFzMMb, axGqHjC, csLiDpC, GAAY, K9EtKyD, C8EsKtE, GAA+C, EAA/C, I; MQmCmD, C; KAPvD, C; sGASA, yB; MRnCA, kE; MQmCA, 4B; QA0wD, ORpCoB, sBtlZDnC, csLyDe, GAAW, KAAS, C; MQoCpB, C; KAPxD, C; 8FASA, yB; MAAA, 0D; M9LGA, 4B; MAAA, iC; M8LHA, 4B; QAQuD, O9LMZ, gBAAY, Q8LNQ, kB9L7FrB, cAAL, GAAiB, K8L6FS, C9LMR, CAAZ, C; M8LNY, C; KARvD, C; 4FAUA, yB; MAAA, wD; M9LPA, 4B; MAAA, iC; M8LOA, 4B; QAQsD, O9LJX, gBAAY, Q8LIO, iB9LvGpB, cAAL, GAAiB, K8LuGQ, C9LJP, CAAZ, C; M8LIW, C; KARtD, C; gFAWA, yB; MAAA, 4C; M9L7BA, iC; M8L6BA, sC; QAc6D, O9LjChB, gB8LiC0B, W9LI9B, c8LkI8B, EAAW, QAAX, C9LjC1B, C; M8LiCgB, C; KAd7D, C; kFAGBA, yB; MAAA, 8C; M9L7CA, iC; M8L6CA, sC; QAc8D, O9LjDjB, gB8LiD2B, Y9LIJ/B, c8LkI+B, EAAY, QAAZ, C9LjD3B, C; M8LiDiB, C; KAd9D, C; MC9SI, ShMyHoD, cgMzH3C, ChMyH2C, EgMzHvC, ChMyHuC, C; MgMxHpD, ShMwHoD, cgMxH3C, ChMwH2C, EgMxHvC, ChMwHuC, C; MgMvHpD, OhMiDkE, YgMjDvD, EhMiDwE, KAAjB, EgMjDjD, EhMiD8E, KAA7B, CgMjDvD, KAAX, GhMgFsD, SgMhFjC, EhMgF2C, KAAK, GgMhF3C, EhMgFuD, KAAZ, IAaf, CgMhFtD, GhMmEqD, SAAU, CAaT, SgMhFpB, EhMgF8B, KAAK, GgMhF9B, EhMgF0C, KAAZ, IAaf, CAhS, MAAK, GgMnExB, ChMmEmC, KAAX, IAaf, C; IgMIEzD, C; MAGI, SJKsHsD, eiKtH7C, CjKsH6C, EiKtHzC, CjKsHyC, C; MiKrHtD, SJKqHsD, eiKrH7C, CjKqH6C, EiKrHzC, CjKqHyC, C; MiKpHtD, OjKmDmE, aiKnDxD, EjKmD0E, KAAiB, EiKnDID, EjKmDgF, KAA9B, CiKnDxD, KAAX, GjK6EwD, UiK7EnC, EjK6E8C, KAAK, UiK7E9C, EjK6E0D, KAAZ, CAAhB, CiK7ExD, GjKgEuD, UAAW, CAaV, UiK7EtB, EjK6EiC, KAAK, UiK7EjC, EjK6E6C, KAAZ, CAAhB, CAhU, MAAK, KiKhE3B, CjKgEsC, KAAX, CAAhB, C; iK/D3D, C; MAqBI, WAAO, CAAP, C; QAD8E, OhMsBZ, YgMrBID, KhMqBmE, KAAjB, EgMrBzC, GhMqBsE, KAA7B, CgMrBID, KAD8D, GACHD, GADgD, GhMqDxB, SgMpDf, GhMoDyB, KAAK, GgMpDxB, mBAAiB, GAAjB, EAAsB, KAAtB, EhMkQV, SgMIQuC, IhMkQvC, CgMIQU, ChMoDoC, KAAZ, IAaf, C; YgMnDtD, WAAO, CAAP, C; QAF8E, OhMsBZ, YgMpBID, KhMoBmE, KAAjB, EgMpBzC, GhMoBsE, KAA7B, CgMpBID, KAF8D, GAehD, GAFgD, GhMwCzB, SgMtCd, GhMsCwB, KAAK, GgMtCvB, mBAAiB, KAAjB, EAAwB, GAAXB, EhMiQV, SgMjQwC, CAAC, IAAD, IhMiQxC, CgMjQU, ChMsCkC, KAAX, IAaf, C; QgMrC7C, MAaA, gCAAYB, eAAzB, C; IAHyD, C; MAYB9E, sBAAO, CAAP, C; QADkF, OjKMf, aiKLnD, KjKKqE, KAAiB, EiKL1C, GjKKwE, KAA9B, CiKLnD, KADkE, GAcPd, GADoD, GjKgC1B, UiK/BjB, GjK+B4B, KAAK, UiK/B3B, mBAAiB, GAAjB, EAAsB, KAAtB, EjKyPP, UiKzPoC, IjKyPpC, CiKzPO, CjK+BuC, KAAZ, CAAhB, C; YiK9BxD, sBAAO, CAAP, C; QAFkF, OjKMf, aiKJnD, KjKIqE, KAAiB, EiKJ1C, GjKIwE, KAA9B, CiKJnD, KAFkE, GAepD, GAFoD, GjKmb3B, UiKjBhB, GjKiB2B, KAAK, KiKjB1B, mBAAiB, KAAjB, EAAwB, GAAXB, EjKwPP, UiKxPsC, IAAD, ajKwPrC, CiKxPO, CjKiBqC, KAAX, CAAhB, C; QiKhB/C, MAaA, gCAAYB, eAAzB, C; IAH6D, C; M/L/CIF, 8B; MAF0D, gB; IAAnC, C; MAEvB, gC; MACI, iBAGqC, WAAO, CAAP, C; MAErC, iBAGqC, WAAO, MAAP, C; MAErC, kBAGmC, C; MAEnC, iBAGkC, E; IANbtC, C; MAAA, uC; QAAA, sB; MAAA, gC; IAaa, C; MA4B0D, OAAa, 0BAkJjC, SAAL, GAAiB, KAlJqB, EAAU, KFiJ3C, KAAL, GAAiB, GEjJqB, C; IAAb, C; MASU, OAaA, 0BAyI3C, SAAL, GAAiB, KazI+B, EAAU, KayIrD, KAAL, GAAiB, KazI+B, C; IAAb, C; wGAepE, yB; MAgKA, 6B; MDjKA, 8C; MCCA, wB; QAMyD, ODAS, YAAiB, CCmKhD, cAAU, SAAL, GAAiB, KAAtB, CDnKgD, MAajB, EC Ae, KDAc, KAA7B, C; MCAT, C; KANzD, C; wGAQA, yB; MAKKA, aAS6D, 0B; MAT7D, +B; M8BnKA, gD; M9BCA, w

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BAAM,IAAK,OAAX,C;QAAV,C;MAAA,C;;QNgDb,oB;UACrB,WAAW,sBAAiB,CAAjB,C;UACX,cAAM,IAA  
N,C;UADA,OAEA,IAAK,Y;QAHgB,C;MAAA,C;MAV7B,sC;QMtCI,mBAAsC,gCNgDb,8BMhDa,CAAtC,6B;Q  
NgDA,yD;MAAA,C;KAVJ,C;kHA4BI,yB;MAAA,gE;MAAA,mB;QACI,MAAM,6BAAoB,0BAApB,C;MACV,C;  
KAFA,C;4IAMJ,yB;MAAA,yF;MAAA,gE;MAAA,8B;MAAA,qB;MAAA,oC;QAMa,Q;;UAHL,aAAa,O;UACb,I  
AAI,WAAW,mBAAf,C;YAEuC,CAAIC,kEAakC,eAAO,MAAP,C;;;UAEzC,gC;YACE,UAAW,6BAAoB,CAAP  
B,C;;YAPf,O;;MASJ,C;KAXA,C;;MMxE0C,uB;QAAU,qBAAM,IAAK,OAAX,C;MAAV,C;IAAA,C;;MAAtC,O  
AAsC,wCAATC,c;IAAA,C;8GARBJ,yB;;QAqB0C,uB;UAAU,qBAAM,IAAK,OAAX,C;QAAV,C;MAAA,C;MarB  
1C,sC;QAqBI,mBAAsC,sCAATC,6B;QAAA,yD;MAAA,C;KArBJ,C;;MAiCI,MAAM,wBAAoB,sEAAPB,C;IAAN  
,C;2HAVJ,yB;MAAA,gE;MAAA,sC;QAUI,MAAM,6BAAoB,sEAAPB,C;MAAN,C;KAVJ,C;mHAYA,yB;MAAA  
,gE;MAAA,4B;QAMI,MAAM,6BAAoB,4CAAPB,C;MAAN,C;KANJ,C;;MjM7BuF,wC;IARvF,C;IAAA,wD;MA  
S2C,8B;IAAA,C;IAT3C,8E;;MiMuB0C,uB;QAAU,qBAAM,IAAK,OAAX,C;MAAV,C;IAAA,C;;MCVmF,mB;Q  
AAE,qBAAc,qBAAd,C;MAAF,C;IAAA,C;;MAAT,OIML7B,2BkMKsC,mCIMLc,C;IkMK6B,C;;MAWhH,eAAe,  
6B;MACf,oBAAkC,yBAAd,aAAc,EAAoC,QAApC,EAA2D,QAA3D,C;MACIC,OAAO,Q;IACX,C;;IAa4C,C;;MA  
iBpC,IAAI,uCAA0B,QAAS,UAAvC,C;QAAkD,M;MACID,OAAO,sBAAS,QAAS,WAAIB,e;IACX,C;;MAOqD,6  
BAAS,QAAS,WAAIB,e;IAAA,C;;;MAYd,0B;MACvC,eAAoB,C;MACpB,mBAA4B,I;MAC5B,sBAAyC,I;M  
ACzC,gBAAoC,I;IAJxC,C;;MAOQ,OAAO,IAAP,C;QACI,QAAM,YAAN,C;eACI,C;YAAA,K;eACA,C;YACI,IA  
AI,kCAAE,UAAnc,C;cACI,eAAQ,C;cACR,OAAO,I;;cAEP,sBAAe,I;;YALvB,K;eAOA,C;YAAc,OAAO,K;eACr  
B,C;eAAA,C;YAAgC,OAAO,I;kBAC/B,MAAM,yB;;QAGIB,eAAQ,C;QACR,WAAW,4B;QACX,gBAAW,I;QAC  
X,IAAK,cAAO,IAAP,C;IAEb,C;;MAGU,IASe,I;MATrB,QAAM,YAAN,C;aACI,C;aAAA,C;UAAc,OAAO,qB;a  
AC7C,C;UACI,eAAQ,C;UACR,OAAO,kCAAE,O;aAE1B,C;UACI,eAAQ,C;UACR,aAcA,iF;UACb,mBAAy,I;U  
ACZ,OAAO,M;gBAEH,MAAM,yB;;IAEtB,C;;MAGI,IAAI,CAAC,cAAL,C;QAAgB,MAAM,6B;;QAA8B,OAAO

,W;IAC/D,C;;MAE4C,QAAM,YAAN,C;aACx,C;UADwC,OAC1B,6B;aACd,C;UAFwC,OAExB,2BAAsB,sBAA  
tB,C;gBAFwB,OAGhC,2BAAsB,uCAAoC,YAA1D,C;;IAHgC,C;;MAUR,oB;QAC5B,wCAAW,C;QAAX,OACA,  
mB;MAF4B,C;IAAA,C;;MAFhC,mBAAY,K;MACZ,eAAQ,C;MACR,ODpHkC,kCCoHF,0CDpHE,CAAtC,c;ICw  
HA,C;;MAMoC,oB;QAC5B,wCAAW,C;QAAX,OACA,mB;MAF4B,C;IAAA,C;;MAHhC,IAAI,CAAC,QAAS,UA  
Ad,C;QAAyB,M;MACzB,sBAAe,Q;MACf,eAAQ,C;MACR,OD9HkC,kCC8HF,6CD9HE,CAAtC,c;ICkIA,C;;MAI  
I,eAAQ,C;IACZ,C;;MAGI,MAAM,S;IACV,C;;MAGY,0C;IAAA,C;;gBRxIc,S;cACF,  
S;0BEGiB,sC;qBMsCH,C;yBACI,C;sBACH,C;kBACJ,C;iBACD,C;mBACE,C;;;A3NvExC,CAJC,E;" }

Found in path(s):

\* /opt/cola/permits/1411867106\_1662683866.8338356/0/kotlin-1-3-50-4-tgz/package/kotlin.js.map

## 1.7 jmes-path-query-library 1.12.29

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\* /opt/cola/permits/1411866864\_1662690625.6026049/0/jmespath-java-1-12-29-jar/META-  
INF/maven/com.amazonaws/jmespath-java/pom.xml

## 1.8 mockito v3.11.2

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# 1.9 go-tomb-tomb 20180513-snapshot-d5d1b582

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# 1.10 client-golang v1.12.0

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  - Origin: Derived from PCollections, A Persistent Java Collections Library (<https://pcollections.org/>)
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  - Origin: QUnit, Copyright (c) 2012 John Resig, Jrn Zaefferer,
  
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 tests/src/test/resources/testProject/allOpenSpring/src/org/springframework/stereotype/Component.java
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/\* PRESENT 1 \*/

/\* PRESENT 2 \*/

// PRESENT 3

/\*\* ABSENT \*/

package/\* ABSENT 1 \*/ normal

/\* ABSENT 2 \*/

// COMMENTS: 3

ASM: a very small and fast Java bytecode manipulation framework

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```
/* ABSENT */
```

```
class Some
```

```
// COMMENTS: 0
```

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```
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JSCRE - in runtime/third_party/jscre  
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- \*/

```
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```

```
import org.xml.sax.InputSource
import java.io.File
import javax.xml.xpath.XPathFactory
```

```
fun readCopyrightNoticeFromProfile(copyrightProfile: File): String {
    val template = copyrightProfile.reader().use { reader ->
        XPathFactory.newInstance().newXPath().evaluate("/component/copyright/option[@name='notice']/@value",
        InputSource(reader))
    }
    val yearTemplate = "&#36;today.year"
    val year = java.time.LocalDate.now().year.toString()
    assert(yearTemplate in template)

    return template.replace(yearTemplate, year).lines().joinToString("", prefix = "/*\n", postfix = " *\n") { " * $it\n" }
}
/* PRESENT */

fun some() {}
```

```
// COMMENTS: 1
```

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That's all there is to it!

/\* PRESENT \*/

package normal

// COMMENTS: 1

Google Dart Js backend was removed - <https://code.google.com/p/dart/source/detail?r=4771>

According to <http://www.apache.org/legal/3party.html> we can include "Google Dart Js backend" in source form, because code license is "New BSD License" (Authorized License).

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====

/\* PRESENT \*/

```
foo()
```

```
// COMMENTS: 1
```

```
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```

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```
/*
```

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```

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```

```
*/
```

```
package org.jetbrains.kotlin.copyright
```

```
import junit.framework.AssertionFailedError
```

```
import org.jetbrains.kotlin.idea.copyright.UpdateKotlinCopyright
```

```
import org.jetbrains.kotlin.idea.test.KotlinLightCodeInsightFixtureTestCase
```

```
import org.jetbrains.kotlin.idea.test.PluginTestCaseBase
```

```
import org.jetbrains.kotlin.test.InTextDirectivesUtils
```

```
import org.junit.Assert
```

```
import java.io.File
```

```
abstract class AbstractUpdateKotlinCopyrightTest : KotlinLightCodeInsightFixtureTestCase() {
```

```
    fun doTest(path: String) {
```

```
        myFixture.configureByFile(path)
```

```
        val fileText = myFixture.file.text.trim()
```

```
        val expectedNumberOfComments = InTextDirectivesUtils.getPrefixedInt(fileText, "// COMMENTS: ") ?: run {
```

```
            if (fileText.isNotEmpty()) {
```

```

        throw AssertionError("Every test should assert number of comments with `COMMENTS`
directive")
    } else {
        0
    }
}

val comments = UpdateKotlinCopyright.getExistentComments(myFixture.file)
for (comment in comments) {
    val commentText = comment.text
    when {
        commentText.contains("PRESENT") -> {
        }
        commentText.contains("ABSENT") -> {
            throw AssertionError("Unexpected comment found: `$commentText`")
        }
        else -> {
            throw AssertionError("A comment with bad directive found: `$commentText`")
        }
    }
}

Assert.assertEquals(
    "Wrong number of comments found:\n${comments.joinToString(separator = "\n") { it.text }}\n",
    expectedNumberOfComments, comments.size
)
}

override fun getTestDataPath() = File(PluginTestCaseBase.getTestDataPathBase(), "/copyright").path +
File.separator
}
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package tasks

import groovy.util.Node
import groovy.util.XmlParser
import org.gradle.api.DefaultTask
import org.gradle.api.Project
import org.gradle.api.tasks.Input
import org.gradle.api.tasks.InputFile
import org.gradle.api.tasks.OutputFile
import org.gradle.api.tasks.TaskAction
import java.io.File
import java.util.*

```

```

open class WriteCopyrightToFile : DefaultTask() {

    @InputFile
    var path = project.file("${project.rootDir}/.idea/copyright/apache.xml")

    @OutputFile
    var outputFile: File? = null

    @Input
    var commented: Boolean = true

    @TaskAction
    fun write() {
        if (commented) {
            outputFile!!.writeText(project.readCopyrightCommented())
        } else {
            outputFile!!.writeText(project.readCopyright())
        }
    }
}

fun Project.readCopyright(): String {
    val file = rootDir.resolve(".idea/copyright/apache.xml")

    assert(file.exists()) {
        "File $file with copyright not found"
    }

    val xmlParser = XmlParser()
    val node = xmlParser.parse(file)
    assert(node.attribute("name") == "CopyrightManager") {
        "Format changed occasionally?"
    }

    val copyrightBlock = node.children().filterIsInstance<Node>().single()
    val noticeNode = copyrightBlock.children().filterIsInstance<Node>().single { it.attribute("name") == "notice" }
    return noticeNode.attribute("value").toString().replace("&#36;today.year",
GregorianCalendar()[Calendar.YEAR].toString())
}

fun Project.readCopyrightCommented(): String {
    return "/*\n" + readCopyright().prependIndent(" * ") + "\n */"
}

```

}

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\* /opt/cola/permits/1127519953\_1611825926.02/0/animal-sniffer-annotations-1-19-sources-jar/META-INF/maven/org.codehaus.mojo/animal-sniffer-annotations/pom.xml

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## 1.13 aws-java-sdk-::-services-::-aws-glue

### 2.17.52

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Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.

Automatic-Module-Name: io.netty.codec.http

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Bundle-SymbolicName: io.netty.codec-http

Implementation-Version: 4.1.72.Final

Built-By: norman

Bnd-LastModified: 1639395920992

Bundle-ManifestVersion: 2

Implementation-Vendor-Id: io.netty

Bundle-DocURL: <https://netty.io/>

Bundle-Vendor: The Netty Project

Import-Package: com.aayushatharva.brotli4j.encoder;resolution:=optional,com.jcraft.jzlib;resolution:=optional,io.netty.buffer;version="[4.1,5)",io.netty.channel;version="[4.1,5)",io.netty.channel.embedded;version="[4.1,5)",io.netty.handler.codec,io.netty.handler.codec.base64;version="[4.1,5)",io.netty.handler.codec.compression;version="[4.1,5)",io.netty.handler.ssl;version="[4.1,5)",io.netty.handler.stream;version="[4.1,5)",io.netty.util;version="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.netty.util.internal.logging;version="[4.1,5)",sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2)";resolution:=optional

Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.6))"

Tool: Bnd-2.4.1.201501161923

Implementation-Vendor: The Netty Project

Export-Package: io.netty.handler.codec.http;uses="io.netty.buffer,io.netty.channel,io.netty.channel.embedded,io.netty.handler.codec,io.netty.handler.codec.compression,io.netty.handler.codec.http.cookie,io.netty.handler.stream,io.netty.util";version="4.1.72",io.netty.handler.codec.http.cookie;version="4.1.72",io.netty.handler.codec.http.cors;uses="io.netty.channel,io.netty.handler.codec.http";version="4.1.72",io.netty.handler.codec.http.multipart;uses="io.netty.buffer,io.netty.channel,io.netty.handler.codec,io.netty.handler.codec.http,io.netty.handler.stream,io.netty.util";version="4.1.72",io.netty.handler.codec.http.websocketx;uses="io.netty.buffer,io.netty.channel,io.netty.handler.codec,io.netty.handler.codec.http,io.netty.handler.stream,io.netty.util,io.netty.util.internal.logging";version="4.1.72",io.netty.handler.codec.http.websocketx.extensions;uses="io.netty.channel,io.netty.handler.codec,io.netty.handler.codec.http.websocketx";version="4.1.72",io.netty.handler.codec.http.websocketx.extensions.compression;uses="io.netty.channel,io.netty.handler.codec.http.websocketx.extensions

";version="4.1.72",io.netty.handler.codec.rtsp;uses:="io.netty.buffer,  
,io.netty.channel,io.netty.handler.codec.http,io.netty.util";version=  
"4.1.72",io.netty.handler.codec.spdy;uses:="io.netty.buffer,io.netty.  
channel,io.netty.handler.codec,io.netty.handler.codec.http,io.netty.u  
til";version="4.1.72"

Bundle-Name: Netty/Codec/HTTP

Bundle-Version: 4.1.72.Final

Created-By: Apache Maven Bundle Plugin

Build-Jdk: 1.8.0\_252

Implementation-URL: <https://netty.io/netty-codec-http/>

Found in path(s):

\* /opt/cola/permits/1411867046\_1662690214.5444846/0/netty-codec-http-4-1-72-final-jar/META-INF/MANIFEST.MF

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\* /opt/cola/permits/1411867046\_1662690214.5444846/0/netty-codec-http-4-1-72-final-jar/META-INF/maven/io.netty/netty-codec-http/pom.xml

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## 1.16 patrickmn-go-cache 2.1.0

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## 1.17 guava-internalfuturefailureaccess-and-internalfutures 1.0.1

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 */
```

Found in path(s):

```
* /opt/cola/permits/1130987386_1612872111.26/0/failureaccess-1-0-1-sources-  
jar/com/google/common/util/concurrent/internal/InternalFutureFailureAccess.java  
* /opt/cola/permits/1130987386_1612872111.26/0/failureaccess-1-0-1-sources-  
jar/com/google/common/util/concurrent/internal/InternalFutures.java
```

## 1.18 aws-java-sdk-auth 2.17.52

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# 1.20 guava 30.1-android

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jar/com/google/common/util/concurrent/ServiceManagerBridge.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/base/Java8Usage.java
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jar/com/google/common/collect/GwtTransient.java
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* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/collect/RegularImmutableBiMap.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/collect/StandardTable.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/collect/TreeBasedTable.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/collect/ImmutableCollection.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/collect/CollectPreconditions.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/collect/HashBasedTable.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/collect/Table.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
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* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
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* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/collect/ImmutableBiMap.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/thirdparty/publicsuffix/PublicSuffixPatterns.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/collect/UnmodifiableIterator.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/collect/StandardRowSortedTable.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
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jar/com/google/common/collect/Serialization.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ImmutableMapKeySet.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ImmutableMapEntrySet.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ImmutableMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/PeekingIterator.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ImmutableSortedSet.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ImmutableMultiset.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/Range.java  
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jar/com/google/common/collect/ImmutableEntry.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ImmutableMapValues.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/Tables.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/Collections2.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ImmutableMultimap.java  
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jar/com/google/common/collect/SortedMultisets.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/SortedMultiset.java

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jar/com/google/common/math/Quantiles.java  
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jar/com/google/common/eventbus/Subscriber.java  
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jar/com/google/common/util/concurrent/ListenerCallQueue.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/TrustedListenableFutureTask.java  
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jar/com/google/common/eventbus/SubscriberRegistry.java  
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jar/com/google/common/collect/FilteredMultimapValues.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/thirdparty/publicsuffix/PublicSuffixType.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
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jar/com/google/common/io/CharSequenceReader.java  
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jar/com/google/common/hash/HashingInputStream.java  
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jar/com/google/common/collect/AbstractTable.java  
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jar/com/google/common/graph/DirectedGraphConnections.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/graph/AbstractUndirectedNetworkConnections.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/graph/AbstractNetwork.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ImmutableMultisetGwtSerializationDependencies.java  
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jar/com/google/common/graph/MapIteratorCache.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/graph/AbstractGraph.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/graph/StandardValueGraph.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/LinkedHashMapMultimapGwtSerializationDependencies.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/graph/AbstractGraphBuilder.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingNavigableMap.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-

jar/com/google/common/collect/AbstractSortedKeySortedSetMultimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ForwardingImmutableMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/AbstractMultimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/FilteredMultimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/TreeRangeMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/CompactHashMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/FilteredEntrySetMultimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/TransformedIterator.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/AllEqualOrdering.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ForwardingBlockingDeque.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/ForwardingBlockingDeque.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ForwardingImmutableSet.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/CompactLinkedHashMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/FilteredSetMultimap.java  
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jar/com/google/common/collect/ForwardingImmutableList.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/FilteredKeySetMultimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ImmutableEnumMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/TreeTraverser.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/RangeMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/UnmodifiableSortedMultiset.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-

jar/com/google/common/collect/DescendingImmutableSortedSet.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/TransformedListIterator.java  
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jar/com/google/common/collect/ImmutableEnumSet.java  
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/EmptyImmutableSetMultimap.java  
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/SingletonImmutableTable.java  
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ImmutableAsList.java  
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ComparisonChain.java  
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/RegularImmutableSortedSet.java  
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ImmutableTable.java  
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ComputationException.java  
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ArrayTable.java  
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ForwardingTable.java  
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ImmutableClassToInstanceMap.java  
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/RegularImmutableList.java  
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ImmutableSortedSetFauxverideShim.java
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ImmutableSortedMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ImmutableSetMultimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/AbstractIndexedListIterator.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/DiscreteDomain.java

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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ObjectCountHashMap.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/graph/Traverser.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ObjectCountLinkedHashMap.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/graph/BaseGraph.java

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jar/com/google/common/util/concurrent/TimeoutFuture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/AbstractCatchingFuture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/reflect/TypeToken.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/io/PatternFilenameFilter.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/GwtFluentFutureCatchingSpecialization.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/ImmediateFuture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/annotations/VisibleForTesting.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/UncheckedTimeoutException.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/CollectionFuture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/escape/CharEscaperBuilder.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/io/AppendableWriter.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/AggregateFuture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/FuturesGetChecked.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/base/CaseFormat.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/Futures.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/AbstractTransformFuture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/GwtFuturesCatchingSpecialization.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/SimpleTimeLimiter.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/TimeLimiter.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-

jar/com/google/common/util/concurrent/FakeTimeLimiter.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/escape/CharEscaper.java  
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jar/com/google/common/util/concurrent/FluentFuture.java  
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jar/com/google/common/collect/ForwardingSortedSetMultimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ForwardingSetMultimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/MinMaxPriorityQueue.java  
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jar/com/google/common/collect/ForwardingListMultimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/RowSortedTable.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/AbstractSequentialIterator.java  
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jar/com/google/common/collect/UnmodifiableListIterator.java  
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jar/com/google/common/collect/ForwardingImmutableCollection.java  
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jar/com/google/common/util/concurrent/MoreExecutors.java

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jar/com/google/common/util/concurrent/IgnoreJRERequirement.java

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jar/com/google/common/util/concurrent/CombinedFuture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/hash/FarmHashFingerprint64.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/Platform.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/InterruptibleTask.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/AsyncCallable.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ConsumingQueueIterator.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/hash/MacHashFunction.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/AggregateFutureState.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/hash/LittleEndianByteArray.java  
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jar/com/google/common/io/ReaderInputStream.java

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\* Holder for extra methods of {@code Objects} only in web. Intended to be empty for regular

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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/primitives/ParseRequest.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/cache/AbstractLoadingCache.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/math/MathPreconditions.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/cache/CacheStats.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/Enums.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/PairwiseEquivalence.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/math/LongMath.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/FutureCallback.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/TreeRangeSet.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/hash/Hashing.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/AbstractListeningExecutorService.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/CycleDetectingLockFactory.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/hash/Funnel.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/math/DoubleUtils.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/hash/Funnels.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/hash/Murmur3\_128HashFunction.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/ExecutionError.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/EmptyContiguousSet.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/hash/Murmur3\_32HashFunction.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/net/HostAndPort.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/Queues.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/cache/package-info.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/cache/RemovalListeners.java

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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/cache/CacheLoader.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/UncheckedExecutionException.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/ListeningScheduledExecutorService.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/AtomicLongMap.java

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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/AbstractScheduledService.java

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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/ForwardingListeningExecutorService.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/RegularContiguousSet.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/hash/AbstractStreamingHasher.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/cache/RemovalListener.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/RegularImmutableMultiset.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/hash/Hasher.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/hash/BloomFilter.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/AbstractSortedMultiset.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/hash/MessageDigestHashFunction.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/math/BigIntegerMath.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/hash/AbstractCompositeHashFunction.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/cache/CacheBuilderSpec.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/cache/LoadingCache.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/cache/RemovalNotification.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/hash/AbstractHasher.java

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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/UncaughtExceptionHandler.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/annotations/package-info.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/ForwardingBlockingQueue.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/SortedLists.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/annotations/Beta.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/Ascii.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/ThreadFactoryBuilder.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ContiguousSet.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/net/package-info.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/Equivalence.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/Atomics.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/primitives/package-info.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/hash/AbstractHashFunction.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/net/InetAddresses.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/primitives/Bytes.java

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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/thirdparty/publicsuffix/TrieParser.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/SequentialExecutor.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/net/PercentEscaper.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/primitives/Doubles.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/CharMatcher.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/primitives/Booleans.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/primitives/Shorts.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/io/Java8Compatibility.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/math/BigDecimalMath.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/hash/Java8Compatibility.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/TopKSelector.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/graph/PredecessorsFunction.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/graph/Graph.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/graph/ImmutableNetwork.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/graph/Graphs.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-

jar/com/google/common/graph/ImmutableGraph.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/graph/MutableNetwork.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/graph/SuccessorsFunction.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/graph/Network.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/graph/MutableGraph.java  
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jar/com/google/common/hash/package-info.java  
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\* Holder for web specializations of methods of { @code Doubles }. Intended to be empty for regular  
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Found in path(s):

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/primitives/DoublesMethodsForWeb.java

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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/cache/LongAdder.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/cache/Striped64.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/hash/Striped64.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/AtomicDoubleArray.java

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jar/com/google/common/primitives/Platform.java
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*/
/**
* Outer class that exists solely to let us write {@code Partially.GwtIncompatible} instead of plain
* {@code GwtIncompatible}. This is more accurate for {@link Futures#catching}, which is available
* under GWT but with a slightly different signature.
*
* <p>We can't use {@code PartiallyGwtIncompatible} because then the GWT compiler wouldn't recognize
* it as a {@code GwtIncompatible} annotation. And for {@code Futures.catching}, we need the GWT
* compiler to autostrip the normal server method in order to expose the special, inherited GWT
* version.
*/
```

Found in path(s):

```
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/util/concurrent/Partially.java
```

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jar/com/google/common/base/CommonPattern.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/base/JdkPattern.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/base/PatternCompiler.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/base/CommonMatcher.java

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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/primitives/FloatsMethodsForWeb.java  
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\* This method was rewritten in Java from an intermediate step of the Murmur hash function in

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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/LinkedHashMultimap.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingCollection.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingObject.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/package-info.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/AbstractSetMultimap.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/BiMap.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingMultimap.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/SetMultimap.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/CompoundOrdering.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/SingletonImmutableSet.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/AbstractListMultimap.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/Multiset.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/LexicographicalOrdering.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ArrayListMultimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingSortedMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/Lists.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/NullsFirstOrdering.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/Iterators.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ByFunctionOrdering.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/Maps.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ExplicitOrdering.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ConcurrentHashMultiset.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/MutableClassToInstanceMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingSortedSet.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/HashMultimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/MapDifference.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/EnumBiMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/UsingToStringOrdering.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/Ordering.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingMultiset.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/Interner.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/Synchronized.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/EnumHashBiMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ImmutableList.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/AbstractMapBasedMultimap.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/Multimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/AbstractMapEntry.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ReverseNaturalOrdering.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/NaturalOrdering.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/AbstractMultiset.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/Iterables.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingListIterator.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingIterator.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/Multisets.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/AbstractMapBasedMultiset.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ReverseOrdering.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/LinkedHashMultiset.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/TreeMultimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/SortedSetMultimap.java  
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/AbstractSortedSetMultimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/TreeMultiset.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ClassToInstanceMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ComparatorOrdering.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingMap.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/HashMultiset.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingMapEntry.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/NullsLastOrdering.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingList.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/AbstractIterator.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingSet.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/RegularImmutableSet.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingQueue.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ListMultimap.java

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Found in path(s):

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/MultimapBuilder.java

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Found in path(s):

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/IndexedImmutableSet.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/BaseImmutableMultimap.java

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Found in path(s):

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/Preconditions.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/LittleEndianDataOutputStream.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/package-info.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/Interners.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/Closeables.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/AbstractFuture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/ListenableFuture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/CharStreams.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/Defaults.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/Predicate.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/AbstractIterator.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/eventbus/AllowConcurrentEvents.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/MultiInputStream.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/DirectExecutor.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/Function.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/LineReader.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/Predicates.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/LineBuffer.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/FinalizableSoftReference.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/FinalizableWeakReference.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/LittleEndianDataInputStream.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/CountingInputStream.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/Supplier.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/ByteStreams.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/Functions.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/Throwables.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/package-info.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/eventbus/EventBus.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/Charsets.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/eventbus/AsyncEventBus.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/package-info.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/ExecutionList.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/Files.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/EnumMultiset.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/HashBiMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/Resources.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/Flushables.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/FinalizableReference.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/CountingOutputStream.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/Suppliers.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/eventbus/Subscribe.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/Objects.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/eventbus/DeadEvent.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/eventbus/package-info.java

\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/FinalizablePhantomReference.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/base/FinalizableReferenceQueue.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/primitives/Primitives.java

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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ForwardingSortedMultiset.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/AbstractRangeSet.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/SortedIterable.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/GeneralRange.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/RangeSet.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/RegularImmutableSortedMultiset.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ImmutableSortedMultiset.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/SortedIterables.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/ImmutableSortedMultisetFauxverideShim.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/Count.java

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*/
/**
 * Returns an array containing all of the elements in the specified collection. This method
 * returns the elements in the order they are returned by the collection's iterator. The returned
 * array is "safe" in that no references to it are maintained by the collection. The caller is
 * thus free to modify the returned array.
 *
 * <p>This method assumes that the collection size doesn't change while the method is running.
 *
 * <p>TODO(kevinb): support concurrently modified collections?
 *
 * @param c the collection for which to return an array of elements
 */

```

Found in path(s):

```

* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/collect/ObjectArrays.java

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 * the License.
*/
/**
 * This method was rewritten in Java from an intermediate step of the Murmur hash function in
 * http://code.google.com/p/smhasher/source/browse/trunk/MurmurHash3.cpp, which contained the

```

```
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*/
```

Found in path(s):

```
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jar/com/google/common/base/SmallCharMatcher.java
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* limitations under the License.
*/
/**
* Not supported. You are attempting to create a map that may contain a non-{@code Comparable}
* key. Proper calls will resolve to the version in {@code ImmutableSortedMap}, not this dummy
* version.
*
* @throws UnsupportedOperationException always
* @deprecated Pass a key of type {@code Comparable} to use {@link
* ImmutableSortedMap#of\(Comparable, Object\).
*/
```

Found in path(s):

```
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/collect/ImmutableSortedMapFauxverideShim.java
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\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/LineProcessor.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/Cut.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/escape/ArrayBasedEscaperMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/escape/ArrayBasedCharEscaper.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/AbstractExecutionThreadService.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/AbstractIdleService.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/net/UrlEscapers.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/annotations/GwtIncompatible.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/ForwardingFluentFuture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/escape/Platform.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/collect/MapMaker.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/AbstractService.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/cache/CacheBuilder.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/xml/XmlEscapers.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/ForwardingFuture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/util/concurrent/Callables.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/io/ByteArrayDataInput.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/net/InternetDomainName.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-jar/com/google/common/primitives/UnsignedBytes.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-

jar/com/google/common/util/concurrent/Service.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/primitives/SignedBytes.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/MapMakerInternalMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/base/Platform.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/html/HtmlEscapers.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/reflect/TypeResolver.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/io/ByteArrayDataOutput.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/cache/ReferenceEntry.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/JdkFutureAdapters.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/escape/ArrayBasedUnicodeEscaper.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/RegularImmutableTable.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/annotations/GwtCompatible.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/ForwardingListenableFuture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/escape/Escapers.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/cache/LocalCache.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/net/HostSpecifier.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/SparseImmutableTable.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/DenseImmutableTable.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/SettableFuture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/base/Splitter.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/io/ByteProcessor.java  
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*/
/*
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*
* As of 2010/06/11, this method is identical to the (package private) hash method in OpenJDK 7's
* java.util.HashMap class.
*/
```

Found in path(s):

```
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/util/concurrent/Striped.java
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*/
```

Found in path(s):

```
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/reflect/Reflection.java
```

No license file was found, but licenses were detected in source scan.

```
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```

```
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express
* or implied. See the License for the specific language governing permissions and limitations under
* the License.
*/
/**
* Holder for web specializations of methods of { @code Shorts}. Intended to be empty for regular
* version.
*/
```

Found in path(s):

```
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/primitives/ShortsMethodsForWeb.java
No license file was found, but licenses were detected in source scan.
```

```
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*/
```

Found in path(s):

```
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/base/StandardSystemProperty.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/math/Stats.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/hash/AbstractByteHasher.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/math/PairedStatsAccumulator.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/hash/ChecksumHashFunction.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/util/concurrent/SmoothRateLimiter.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
```

jar/com/google/common/collect/ImmutableRangeSet.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/io/ByteSource.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/reflect/Invokable.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/math/StatsAccumulator.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/FilteredKeyMultimap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/reflect/Parameter.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/reflect/TypeCapture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/hash/SipHashFunction.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/ServiceManager.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/math/LinearTransformation.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/cache/LongAddables.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/RateLimiter.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/io/CharSource.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/reflect/package-info.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/io/Closer.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/util/concurrent/ListenableScheduledFuture.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/io/BaseEncoding.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/reflect/Element.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/xml/package-info.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/CartesianList.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/escape/package-info.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/math/PairedStats.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/collect/ImmutableRangeMap.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-  
jar/com/google/common/io/CharSink.java  
\* /opt/cola/permits/1125300210\_1615713995.83/0/guava-30-1-android-sources-1-

```

jar/com/google/common/reflect/ImmutableTypeToInstanceMap.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/reflect/TypeToInstanceMap.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/hash/LongAddable.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/reflect/MutableTypeToInstanceMap.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/reflect/ClassPath.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/html/package-info.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/io/ByteSink.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/reflect/AbstractInvocationHandler.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/cache/LongAddable.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/hash/LongAddables.java
* /opt/cola/permits/1125300210_1615713995.83/0/guava-30-1-android-sources-1-
jar/com/google/common/io/FileWriteMode.java

```

## 1.21 kotlinx-coroutines-core 1.1.1

### 1.21.1 Available under license :

```

=====
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=====

```

kotlinx.coroutines library.

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## 1.22 kotlin-scripting-common 1.3.50

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 */
```

Found in path(s):

```
* /opt/cola/permits/1137595702_1614104283.49/0/kotlin-scripting-common-1-3-50-sources-3-
jar/kotlin/script/experimental/host/BasicScriptingHost.kt
```

# 1.23 zstd-jni 1.4.9-1

## 1.23.1 Available under license :

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Manifest-Version: 1.0

Automatic-Module-Name: com.github.luben.zstd\_jni

Bnd-LastModified: 1615191527618

Bundle-Description: JNI bindings for Zstd native library that provides fast and high compression lossless algorithm for Java and all JVM languages.

Bundle-License: <https://opensource.org/licenses/BSD-2-Clause>;description=BSD 2-Clause License

Bundle-ManifestVersion: 2

Bundle-Name: zstd-jni

Bundle-NativeCode: aix/ppc64/libzstd-jni.so;osname=AIX;processor=ppc64, darwin/x86\_64/libzstd-jni.dylib;osname=MacOS;osname=MacOSX;processor=x86\_64, darwin/aarch64/libzstd-jni.dylib;osname=MacOS;osname=MacOSX;processor=aarch64, freebsd/amd64/libzstd-jni.so;osname=FreeBSD;processor=amd64, freebsd/i386/libzstd-jni.so;osname=FreeBSD;processor=i386, linux/aarch64/libzstd-jni.so;osname=Linux;processor=aarch64, linux/amd64/libzstd-jni.so;osname=Linux;processor=amd64, linux/arm/libzstd-jni.so;osname=Linux;processor=arm, linux/i386/libzstd-jni.so;osname=Linux;processor=i386, linux/mips64/libzstd-jni.so;osname=Linux;processor=mips64, linux/ppc64/libzstd-jni.so;osname=Linux;processor=ppc64, linux/ppc64le/libzstd-jni.so;osname=Linux;processor=ppc64le, linux/s390x/libzstd-jni.so;osname=Linux;processor=s390x, win/amd64/libzstd-jni.dll;osname=Win32;processor=amd64, win/x86/libzstd-jni.dll;osname=Win32;processor=x86

Bundle-SymbolicName: com.github.luben.zstd-jni

Bundle-Vendor: com.github.luben

Bundle-Version: 1.4.9.1

Created-By: 1.8.0\_275 (Debian)

Export-Package: com.github.luben.zstd;version="1.4.9.1",com.github.luben.zstd.util;version="1.4.9.1"

Implementation-Title: zstd-jni

Implementation-Vendor: com.github.luben

Implementation-Vendor-Id: com.github.luben

Implementation-Version: 1.4.9-1

Import-Package: org.osgi.framework;resolution:=optional

Private-Package: linux.amd64,linux.i386,linux.aarch64,linux.arm,linux.ppc64,linux.ppc64le,linux.mips64,linux.s390x,aix.ppc64,darwin.x86\_64,darwin.aarch64,win.amd64,win.x86,freebsd.amd64,freebsd.i386

Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.8))"

Specification-Title: zstd-jni

Specification-Vendor: com.github.luben

Specification-Version: 1.4.9-1  
Tool: Bnd-4.0.0.201805111645

Found in path(s):

\* /opt/cola/permits/1183892379\_1627494642.79/0/zstd-jni-1-4-9-1-1-jar/META-INF/MANIFEST.MF

# 1.24 pegasus-kv/thrift v0.13.0

## 1.24.1 Available under license :

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Version 2.1, February 1999

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compiler/cpp/src/main.cc  
compiler/cpp/src/parse/t\_field.h  
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compiler/cpp/src/platform.h  
compiler/cpp/src/thriftl.ll  
compiler/cpp/src/thrifty.yy  
lib/csharp/src/Protocol/TBinaryProtocol.cs  
lib/csharp/src/Protocol/TField.cs  
lib/csharp/src/Protocol/TList.cs  
lib/csharp/src/Protocol/TMap.cs  
lib/csharp/src/Protocol/TMessage.cs  
lib/csharp/src/Protocol/TMessageType.cs  
lib/csharp/src/Protocol/TProtocol.cs  
lib/csharp/src/Protocol/TProtocolException.cs  
lib/csharp/src/Protocol/TProtocolFactory.cs  
lib/csharp/src/Protocol/TProtocolUtil.cs  
lib/csharp/src/Protocol/TSet.cs  
lib/csharp/src/Protocol/TStruct.cs  
lib/csharp/src/Protocol/TType.cs  
lib/csharp/src/Server/TServer.cs  
lib/csharp/src/Server/TSimpleServer.cs  
lib/csharp/src/Server/TThreadPoolServer.cs

lib/csharp/src/TApplicationException.cs  
lib/csharp/src/Thrift.csproj  
lib/csharp/src/Thrift.sln  
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lib/csharp/src/Transport/TTransportFactory.cs  
lib/csharp/ThriftMSBuildTask/Properties/AssemblyInfo.cs  
lib/csharp/ThriftMSBuildTask/ThriftBuild.cs  
lib/csharp/ThriftMSBuildTask/ThriftMSBuildTask.csproj  
lib/rb/lib/thrift.rb  
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## 1.33 classgraph 4.8.120

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 * Author: Michael J. Simons
 *
 * Hosted at: https://github.com/classgraph/classgraph
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\* Author: Luke Hutchison (luke.hutch@gmail.com)

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\* Author: R. Kempees

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\* With contributions from @cpierceworld (#414)

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\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/TypeParameter.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/json/FieldTypeInfo.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classpath/ModuleFinder.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classloaderhandler/TomcatWebappClassLoaderBaseHandler.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ScanResultObject.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classloaderhandler/ClassLoaderHandler.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ClasspathElementFileDir.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/AnnotationEnumValue.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/scanspec/ScanSpec.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/Utils/StringUtils.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/PackageInfoList.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classpath/CallStackReader.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/MappableInfoList.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ModuleInfo.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/json/JSONArray.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/AnnotationInfo.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ClasspathElementZip.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/Utils/ReflectionUtils.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/Scanner.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/Utils/VersionFinder.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classloaderhandler/ClassGraphClassLoaderHandler.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/json/JSONObject.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/Utils/FastPathResolver.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/concurrency/InterruptedExceptionChecker.java

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\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/MethodTypeSignature.java  
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\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classloaderhandler/JPMSClassLoaderHandler.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/concurrency/WorkQueue.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ScanResult.java  
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\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ArrayClassInfo.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ModuleRef.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ClassGraphException.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/HierarchicalTypeSignature.java  
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\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/recycler/Resettable.java  
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\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/HasName.java  
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\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/json/ReferenceEqualityKey.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/json/JSONParser.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/Resource.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/TypeArgument.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classloaderhandler/ParentLastDelegationOrderTestClassLoaderHandler.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classpath/ClassLoaderFinder.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ClasspathElementPathDir.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classloaderhandler/PlexusClassWorldsClassRealmClassLoaderHandler.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ClassGraph.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/json/ClassFields.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classloaderhandler/EquinoxClassLoaderHandler.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classloaderhandler/URLClassLoaderHandler.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/InfoList.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ReferenceTypeSignature.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/types/ParseException.java

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\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/fastzipfilereader/LogicalZipFile.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ClassRefOrTypeVariableSignature.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classloaderhandler/ClassLoaderHandlerRegistry.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/json/JSONDeserializer.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/MethodInfoList.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/json/Id.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/MethodInfo.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/TypeSignature.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ObjectTypedValueWrapper.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/json/JSONSerializer.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classloaderhandler/UnoOneJarClassLoaderHandler.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/AnnotationParameterValueList.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ModuleInfoList.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classpath/SystemJarFinder.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/FieldInfoList.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/fastzipfilereader/PhysicalZipFile.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/Utils/CollectionUtils.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classpath/ClassLoaderOrder.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/MethodParameterInfo.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/scanspec/AcceptReject.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/io/github/classgraph/ClasspathElementModule.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/classpath/ClasspathFinder.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/fastzipfilereader/ZipFileSlice.java  
\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/fastzipfilereader/NestedJarHandler.java  
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\* Hosted at: <https://github.com/classgraph/classgraph>

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\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/fileslice/reader/RandomAccessArrayReader.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/fileslice/reader/RandomAccessByteBufferReader.java

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\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/fileslice/reader/RandomAccessReader.java

\* /opt/cola/permits/1411867118\_1662683845.1356816/0/classgraph-4-8-120-sources-jar/nonapi/io/github/classgraph/fileslice/FileSlice.java

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 jar/nonapi/io/github/classgraph/classloaderhandler/AntClassLoaderHandler.java

## 1.34 leaktest v1.3.0

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## 1.35 [github.com/xiaomi/pegasus-go-client](https://github.com/xiaomi/pegasus-go-client) 20210427-snapshot-f3b6b08b

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src/rdsn/include/dsn/utility/absl/base/internal/invoke.h  
src/rdsn/include/dsn/utility/absl/utility/utility.h  
src/rdsn/src/utls/memutil.h  
src/rdsn/src/utls/string\_view.cpp  
src/rdsn/src/utls/test/memutil\_test.cpp  
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src/rdsn/src/utills/test/TokenBucketTest.h

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src/rdsn/include/dsn/utility/hpc\_locks/autoresetevent.h  
src/rdsn/include/dsn/utility/hpc\_locks/sema.h  
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## 1.38 junit 4.13.1

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```

Found in path(s):

```
* /opt/cola/permits/1288694491_1648174751.39/0/protobuf-java-3-19-3-jar/google/protobuf/empty.proto  
* /opt/cola/permits/1288694491_1648174751.39/0/protobuf-java-3-19-3-jar/google/protobuf/source_context.proto  
* /opt/cola/permits/1288694491_1648174751.39/0/protobuf-java-3-19-3-jar/google/protobuf/wrappers.proto  
* /opt/cola/permits/1288694491_1648174751.39/0/protobuf-java-3-19-3-jar/google/protobuf/descriptor.proto  
* /opt/cola/permits/1288694491_1648174751.39/0/protobuf-java-3-19-3-jar/google/protobuf/duration.proto  
* /opt/cola/permits/1288694491_1648174751.39/0/protobuf-java-3-19-3-jar/google/protobuf/compiler/plugin.proto  
* /opt/cola/permits/1288694491_1648174751.39/0/protobuf-java-3-19-3-jar/google/protobuf/api.proto  
* /opt/cola/permits/1288694491_1648174751.39/0/protobuf-java-3-19-3-jar/google/protobuf/any.proto  
* /opt/cola/permits/1288694491_1648174751.39/0/protobuf-java-3-19-3-jar/google/protobuf/struct.proto  
* /opt/cola/permits/1288694491_1648174751.39/0/protobuf-java-3-19-3-jar/google/protobuf/timestamp.proto  
* /opt/cola/permits/1288694491_1648174751.39/0/protobuf-java-3-19-3-jar/google/protobuf/type.proto  
* /opt/cola/permits/1288694491_1648174751.39/0/protobuf-java-3-19-3-jar/google/protobuf/field_mask.proto
```

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Manifest-Version: 1.0

Automatic-Module-Name: com.google.protobuf

Bnd-LastModified: 1641921938097

Build-Jdk: 1.8.0\_181-google-v7

Built-By: acozzette

Bundle-Description: Core Protocol Buffers library. Protocol Buffers are a way of encoding structured data in an efficient yet extensible format.

Bundle-DocURL: <https://developers.google.com/protocol-buffers/>

Bundle-License: <https://opensource.org/licenses/BSD-3-Clause>

Bundle-ManifestVersion: 2

Bundle-Name: Protocol Buffers [Core]

Bundle-SymbolicName: com.google.protobuf

Bundle-Version: 3.19.3

Created-By: Apache Maven Bundle Plugin

Export-Package: com.google.protobuf;version="3.19.3"

Import-Package: sun.misc;resolution:=optional,com.google.protobuf;version="[3.19,4)"

Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.7))"

Tool: Bnd-3.0.0.201509101326

Found in path(s):

\* /opt/cola/permits/1288694491\_1648174751.39/0/protobuf-java-3-19-3-jar/META-INF/MANIFEST.MF

# 1.42 aws-secretsmanager-caching-java 1.0.1

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## 1.43 netty/transport/classes/epoll 4.1.72.Final

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```

Found in path(s):

```
* /opt/cola/permits/1341130479_1654769335.3946347/0/netty-transport-native-epoll-4-1-72-final-jar/META-INF/maven/io.netty/netty-transport-native-epoll/pom.xml
```

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Manifest-Version: 1.0  
Implementation-Title: Netty/Transport/Native/Epoll  
Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.  
Automatic-Module-Name: io.netty.transport.epoll  
Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>  
Bundle-SymbolicName: io.netty.transport-native-epoll  
Implementation-Version: 4.1.72.Final  
Built-By: root  
Bnd-LastModified: 1639393574219  
Bundle-ManifestVersion: 2  
Implementation-Vendor-Id: io.netty  
Bundle-DocURL: <https://netty.io/>  
Bundle-Vendor: The Netty Project  
Import-Package: sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2)";resolution:=optional  
Tool: Bnd-2.4.1.201501161923  
Implementation-Vendor: The Netty Project  
Bundle-Name: Netty/Transport/Native/Epoll  
Bundle-Version: 4.1.72.Final  
Created-By: Apache Maven Bundle Plugin  
Build-Jdk: 1.8.0\_312  
Implementation-URL: <https://netty.io/netty-transport-native-epoll/>

Found in path(s):

\* /opt/cola/permits/1341130479\_1654769335.3946347/0/netty-transport-native-epoll-4-1-72-final-jar/META-INF/MANIFEST.MF

# 1.44 aws-java-sdk-aws-core 2.17.52

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### 1.1.5

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\* /opt/cola/permits/1411866962\_1662685597.4012601/0/schema-registry-build-tools-1-1-5-jar/META-INF/maven/software.amazon.glue/schema-registry-build-tools/pom.xml  
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## 1.47 aws-java-sdk-for-amazon-s3 1.12.26

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# 1.48 objenesis 3.2

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## 1.49 aws-java-sdk-secretsmanager 1.11.409

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/\*\*

\* <p>

\* Creates a new secret. A secret in Secrets Manager consists of both the protected secret data and the important

\* information needed to manage the secret.

\* </p>

\* <p>

\* Secrets Manager stores the encrypted secret data in one of a collection of "versions" associated with the secret.

\* Each version contains a copy of the encrypted secret data. Each version is associated with one or more

\* "staging labels" that identify where the version is in the rotation cycle. The

\* `SecretVersionsToStages` field of the secret contains the mapping of staging labels to the active

\* versions of the secret. Versions without a staging label are considered deprecated and are not included in the

\* list.

\* </p>

\* <p>

\* You provide the secret data to be encrypted by putting text in either the `SecretString` parameter

or

\* binary data in the `SecretBinary` parameter, but not both. If you include

`SecretString` or

\* `SecretBinary` then Secrets Manager also creates an initial secret version and automatically

attaches

\* the staging label `AWSCURRENT` to the new version.

\* </p>

\* <note>

\* <ul>

\* <li>

\* </li>

\* </ul>

\* <p>

\* If you call an operation that needs to encrypt or decrypt the `SecretString` or

\* `SecretBinary` for a secret in the same account as the calling user and that secret doesn't specify a

\* AWS KMS encryption key, Secrets Manager uses the account's default AWS managed customer master key

(CMK) with the

\* alias `aws/secretsmanager`. If this key doesn't already exist in your account then Secrets Manager

\* creates it for you automatically. All users in the same AWS account automatically have access to use the default

\* CMK. Note that if an Secrets Manager API call results in AWS having to create the account's AWS-managed

CMK, it

- \* can result in a one-time significant delay in returning the result.

\* </p>

- \* </li>

- \* <li>

\* <p>

- \* If the secret is in a different AWS account from the credentials calling an API that requires encryption or decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access the
- \* default CMK for the account using credentials from a different AWS account. Store the ARN of the CMK in the
- \* secret when you create the secret or when you update it by including it in the <code>KMSKeyId</code>. If you call
- \* an API that must encrypt or decrypt <code>SecretString</code> or <code>SecretBinary</code> using credentials from
- \* a different account then the AWS KMS key policy must grant cross-account access to that other account's user

or

- \* role for both the kms:GenerateDataKey and kms:Decrypt operations.

\* </p>

- \* </li>

- \* </ul>

\* </note>

\* <p>

\* </p>

\* <p>

\* <b>Minimum permissions</b>

\* </p>

\* <p>

\* To run this command, you must have the following permissions:

\* </p>

- \* <ul>
- \* <li>
- \* <p>
- \* secretsmanager:CreateSecret
- \* </p>
- \* </li>
- \* <li>
- \* <p>
- \* kms:GenerateDataKey - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You do not
- \* need this permission to use the account's default AWS managed CMK for Secrets Manager.
- \* </p>
- \* </li>
- \* <li>
- \* <p>
- \* kms:Decrypt - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You do not
- \* need this
- \* permission to use the account's default AWS managed CMK for Secrets Manager.
- \* </p>
- \* </li>

```

* </ul>
* <p>
* <b>Related operations</b>
* </p>
* <ul>
* <li>
* <p>
* To delete a secret, use <a>DeleteSecret</a>.
* </p>
* </li>
* <li>
* <p>
* To modify an existing secret, use <a>UpdateSecret</a>.
* </p>
* </li>
* <li>
* <p>
* To create a new version of a secret, use <a>PutSecretValue</a>.
* </p>
* </li>
* <li>
* <p>
* To retrieve the encrypted secure string and secure binary values, use <a>GetSecretValue</a>.
* </p>
* </li>
* <li>
* <p>
* To retrieve all other details for a secret, use <a>DescribeSecret</a>. This does not include the encrypted secure
* string and secure binary values.
* </p>
* </li>
* <li>
* <p>
* To retrieve the list of secret versions associated with the current secret, use <a>DescribeSecret</a> and examine
* the <code>SecretVersionsToStages</code> response value.
* </p>
* </li>
* </ul>
*
* @param createSecretRequest
* @return A Java Future containing the result of the CreateSecret operation returned by the service.
* @sample AWSSecretsManagerAsync.CreateSecret
* @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/CreateSecret"
target="_top">AWS
*   API Documentation</a>
*/
* <p>

```

\* Stores a new encrypted secret value in the specified secret. To do this, the operation creates a new version and attaches it to the secret. The version can contain a new `SecretString` value or a new `SecretBinary` value. You can also specify the staging labels that are initially attached to the new version.

**Note**

The Secrets Manager console uses only the `SecretString` field. To add binary data to a secret with the `SecretBinary` field you must use the AWS CLI or one of the AWS SDKs.

- If this operation creates the first version for the secret then Secrets Manager automatically attaches the staging label `AWSCURRENT` to the new version.
- If another version of this secret already exists, then this operation does not automatically move any staging labels other than those that you explicitly specify in the `VersionStages` parameter.
- If this operation moves the staging label `AWSCURRENT` from another version to this version (because you included it in the `StagingLabels` parameter) then Secrets Manager also automatically moves the staging label `AWSPREVIOUS` to the version that `AWSCURRENT` was removed from.

This operation is idempotent. If a version with a `VersionId` with the same value as the `ClientRequestToken` parameter already exists and you specify the same secret data, the operation succeeds but does nothing. However, if the secret data is different, then the operation fails because you cannot modify an existing version; you can only create new ones.

- \* `<p>`
- \* If you call an operation that needs to encrypt or decrypt the `<code>SecretString</code>` or
- \* `<code>SecretBinary</code>` for a secret in the same account as the calling user and that secret doesn't specify a
- \* AWS KMS encryption key, Secrets Manager uses the account's default AWS managed customer master key (CMK) with the
- \* alias `<code>aws/secretsmanager</code>`. If this key doesn't already exist in your account then Secrets Manager
- \* creates it for you automatically. All users in the same AWS account automatically have access to use the default
- \* CMK. Note that if an Secrets Manager API call results in AWS having to create the account's AWS-managed CMK, it
- \* can result in a one-time significant delay in returning the result.
- \* `</p>`
- \* `</li>`
- \* `<li>`
- \* `<p>`
- \* If the secret is in a different AWS account from the credentials calling an API that requires encryption or
- \* decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access the
- the
- \* default CMK for the account using credentials from a different AWS account. Store the ARN of the CMK in the
- \* secret when you create the secret or when you update it by including it in the `<code>KMSKeyId</code>`. If you call
- call
- \* an API that must encrypt or decrypt `<code>SecretString</code>` or `<code>SecretBinary</code>` using
- credentials from
- \* a different account then the AWS KMS key policy must grant cross-account access to that other account's user
- or
- \* role for both the `kms:GenerateDataKey` and `kms:Decrypt` operations.
- \* `</p>`
- \* `</li>`
- \* `</ul>`
- \* `</note>`
- \* `<p>`
- \* **Minimum permissions**
- \* `</p>`
- \* `<p>`
- \* To run this command, you must have the following permissions:
- \* `</p>`
- \* `<ul>`
- \* `<li>`
- \* `<p>`
- \* `secretsmanager:PutSecretValue`
- \* `</p>`
- \* `</li>`
- \* `<li>`
- \* `<p>`
- \* `kms:GenerateDataKey` - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You
- do not
- \* need this permission to use the account's default AWS managed CMK for Secrets Manager.
- \* `</p>`
- \* `</li>`

```

* </ul>
* <p>
* <b>Related operations</b>
* </p>
* <ul>
* <li>
* <p>
* To retrieve the encrypted value you store in the version of a secret, use <a>GetSecretValue</a>.
* </p>
* </li>
* <li>
* <p>
* To create a secret, use <a>CreateSecret</a>.
* </p>
* </li>
* <li>
* <p>
* To get the details for a secret, use <a>DescribeSecret</a>.
* </p>
* </li>
* <li>
* <p>
* To list the versions attached to a secret, use <a>ListSecretVersionIds</a>.
* </p>
* </li>
* </ul>
*
* @param putSecretValueRequest
* @return A Java Future containing the result of the PutSecretValue operation returned by the service.
* @sample AWSSecretsManagerAsync.PutSecretValue
* @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/PutSecretValue"
target="_top">AWS
*   API Documentation</a>
*/
/**
* <p>
* Modifies many of the details of the specified secret. If you include a <code>ClientRequestToken</code> and
* <i>either</i> <code>SecretString</code> or <code>SecretBinary</code> then it also creates a new version
attached
* to the secret.
* </p>
* <p>
* To modify the rotation configuration of a secret, use <a>RotateSecret</a> instead.
* </p>
* <note>
* <p>
* The Secrets Manager console uses only the <code>SecretString</code> parameter and therefore limits you to
* encrypting and storing only a text string. To encrypt and store binary data as part of the version of a secret,

```

- \* you must use either the AWS CLI or one of the AWS SDKs.

\* </p>

\* </note>

- \* <ul>
- \* <li>
- \* <p>

\* If a version with a <code>VersionId</code> with the same value as the <code>ClientRequestToken</code> parameter

- \* already exists, the operation results in an error. You cannot modify an existing version, you can only create a new version.

\* </p>

- \* </li>
- \* <li>
- \* <p>

\* If you include <code>SecretString</code> or <code>SecretBinary</code> to create a new secret version,

Secrets

- \* Manager automatically attaches the staging label <code>AWSCURRENT</code> to the new version.

\* </p>

- \* </li>
- \* </ul>
- \* <note>
- \* <ul>
- \* <li>
- \* <p>

\* If you call an operation that needs to encrypt or decrypt the <code>SecretString</code> or <code>SecretBinary</code> for a secret in the same account as the calling user and that secret doesn't specify a

- \* AWS KMS encryption key, Secrets Manager uses the account's default AWS managed customer master key (CMK) with the
- \* alias <code>aws/secretsmanager</code>. If this key doesn't already exist in your account then Secrets Manager
- \* creates it for you automatically. All users in the same AWS account automatically have access to use the default
- \* CMK. Note that if an Secrets Manager API call results in AWS having to create the account's AWS-managed

CMK, it

- \* can result in a one-time significant delay in returning the result.

\* </p>

- \* </li>
- \* <li>
- \* <p>

\* If the secret is in a different AWS account from the credentials calling an API that requires encryption or

- \* decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access

the

- \* default CMK for the account using credentials from a different AWS account. Store the ARN of the CMK in the
- \* secret when you create the secret or when you update it by including it in the <code>KMSKeyId</code>. If you

call

- \* an API that must encrypt or decrypt <code>SecretString</code> or <code>SecretBinary</code> using

credentials from

- \* a different account then the AWS KMS key policy must grant cross-account access to that other account's user

or

- \* role for both the kms:GenerateDataKey and kms:Decrypt operations.

\* </p>

\* </li>

\* </ul>

\* </note>

\* <p>

\* <b>Minimum permissions</b>

\* </p>

\* <p>

\* To run this command, you must have the following permissions:

\* </p>

\* <ul>

\* <li>

\* <p>

\* secretsmanager:UpdateSecret

\* </p>

\* </li>

\* <li>

\* <p>

\* kms:GenerateDataKey - needed only if you use a custom AWS KMS key to encrypt the secret. You do not need this

permission

\* permission to use the account's AWS managed CMK for Secrets Manager.

\* </p>

\* </li>

\* <li>

\* <p>

\* kms:Decrypt - needed only if you use a custom AWS KMS key to encrypt the secret. You do not need this

permission

\* to use the account's AWS managed CMK for Secrets Manager.

\* </p>

\* </li>

\* </ul>

\* <p>

\* <b>Related operations</b>

\* </p>

\* <ul>

\* <li>

\* <p>

\* To create a new secret, use <a>CreateSecret</a>.

\* </p>

\* </li>

\* <li>

\* <p>

\* To add only a new version to an existing secret, use <a>PutSecretValue</a>.

\* </p>

\* </li>

\* <li>

\* <p>

\* To get the details for a secret, use <a>DescribeSecret</a>.

```

* </p>
* </li>
* <li>
* <p>
* To list the versions contained in a secret, use <a>ListSecretVersionIds</a>.
* </p>
* </li>
* </ul>
*
* @param updateSecretRequest
* @return A Java Future containing the result of the UpdateSecret operation returned by the service.
* @sample AWSSecretsManagerAsync.UpdateSecret
* @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/UpdateSecret"
target="_top">AWS
*   API Documentation</a>
*/

```

Found in path(s):

```

* /opt/cola/permits/1411866792_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-
jar/com/amazonaws/services/secretsmanager/AWSSecretsManagerAsync.java

```

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```

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* http://aws.amazon.com/apache2.0
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WARRANTIES OR
* CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing
permissions
* and limitations under the License.
*/
/**

```

```

* <p>
* Creates a new secret. A secret in Secrets Manager consists of both the protected secret data and the important
* information needed to manage the secret.
* </p>
* <p>
* Secrets Manager stores the encrypted secret data in one of a collection of "versions" associated with the secret.
* Each version contains a copy of the encrypted secret data. Each version is associated with one or more
* "staging labels" that identify where the version is in the rotation cycle. The
* <code>SecretVersionsToStages</code> field of the secret contains the mapping of staging labels to the active
* versions of the secret. Versions without a staging label are considered deprecated and are not included in the

```

\* list.

\* </p>

\* <p>

\* You provide the secret data to be encrypted by putting text in either the <code>SecretString</code> parameter or

or

\* binary data in the <code>SecretBinary</code> parameter, but not both. If you include <code>SecretString</code> or

\* <code>SecretBinary</code> then Secrets Manager also creates an initial secret version and automatically attaches

\* the staging label <code>AWSCURRENT</code> to the new version.

\* </p>

\* <note>

\* <ul>

\* <li>

\* <p>

\* If you call an operation that needs to encrypt or decrypt the <code>SecretString</code> or

\* <code>SecretBinary</code> for a secret in the same account as the calling user and that secret doesn't specify a

\* AWS KMS encryption key, Secrets Manager uses the account's default AWS managed customer master key (CMK) with the

\* alias <code>aws/secretsmanager</code>. If this key doesn't already exist in your account then Secrets Manager

\* creates it for you automatically. All users in the same AWS account automatically have access to use the default

\* CMK. Note that if an Secrets Manager API call results in AWS having to create the account's AWS-managed CMK, it

\* can result in a one-time significant delay in returning the result.

\* </p>

\* </li>

\* <li>

\* <p>

\* If the secret is in a different AWS account from the credentials calling an API that requires encryption or

\* decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access the

the

\* default CMK for the account using credentials from a different AWS account. Store the ARN of the CMK in the

\* secret when you create the secret or when you update it by including it in the <code>KMSKeyId</code>. If you call

call

\* an API that must encrypt or decrypt <code>SecretString</code> or <code>SecretBinary</code> using credentials from

\* a different account then the AWS KMS key policy must grant cross-account access to that other account's user or

or

\* role for both the kms:GenerateDataKey and kms:Decrypt operations.

\* </p>

\* </li>

\* </ul>

\* </note>

\* <p>

\* </p>

\* <p>

\* <b>Minimum permissions</b>

\* </p>

\* <p>

\* To run this command, you must have the following permissions:

\* </p>

- \* <ul>
- \* <li>

\* <p>

- \* secretsmanager:CreateSecret

\* </p>

- \* </li>
- \* <li>

\* <p>

- \* kms:GenerateDataKey - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You do not

do not

- \* need this permission to use the account's default AWS managed CMK for Secrets Manager.

\* </p>

- \* </li>
- \* <li>

\* <p>

- \* kms:Decrypt - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You do not

need this

- \* permission to use the account's default AWS managed CMK for Secrets Manager.

\* </p>

- \* </li>
- \* <ul>

\* <p>

\* <b>Related operations</b>

\* </p>

- \* <ul>
- \* <li>

\* <p>

- \* To delete a secret, use <a>DeleteSecret</a>.

\* </p>

- \* </li>
- \* <li>

\* <p>

- \* To modify an existing secret, use <a>UpdateSecret</a>.

\* </p>

- \* </li>
- \* <li>

\* <p>

- \* To create a new version of a secret, use <a>PutSecretValue</a>.

\* </p>

- \* </li>
- \* <li>

\* <p>

- \* To retrieve the encrypted secure string and secure binary values, use <a>GetSecretValue</a>.

\* </p>

- \* </li>

- \* <li>
- \* <p>
- \* To retrieve all other details for a secret, use <a>DescribeSecret</a>. This does not include the encrypted secure string and secure binary values.
- \* </p>
- \* </li>
- \* <li>
- \* <p>
- \* To retrieve the list of secret versions associated with the current secret, use <a>DescribeSecret</a> and examine the <code>SecretVersionsToStages</code> response value.
- \* </p>
- \* </li>
- \* </ul>
- \*
- \* @param createSecretRequest
- \* @return Result of the CreateSecret operation returned by the service.
- \* @throws InvalidParameterException
- \* You provided an invalid value for a parameter.
- \* @throws InvalidRequestException
- \* You provided a parameter value that is not valid for the current state of the resource.</p>
- \* <p>
- \* Possible causes:
- \* </p>
- \* <ul>
- \* <li>
- \* <p>
- \* You tried to perform the operation on a secret that's currently marked deleted.
- \* </p>
- \* </li>
- \* <li>
- \* <p>
- \* You tried to enable rotation on a secret that doesn't already have a Lambda function ARN configured and you didn't include such an ARN as a parameter in this call.
- \* </p>
- \* </li>
- \* @throws LimitExceededException
- \* The request failed because it would exceed one of the Secrets Manager internal limits.
- \* @throws EncryptionFailureException
- \* Secrets Manager can't encrypt the protected secret text using the provided KMS key. Check that the customer master key (CMK) is available, enabled, and not in an invalid state. For more information, see <a href="http://docs.aws.amazon.com/kms/latest/developerguide/key-state.html">How Key State Affects Use of a Customer Master Key</a>.
- \* @throws ResourceExistsException
- \* A resource with the ID you requested already exists.
- \* @throws ResourceNotFoundException
- \* We can't find the resource that you asked for.
- \* @throws MalformedPolicyDocumentException

```

* The policy document that you provided isn't valid.
* @throws InternalServiceErrorException
* An error occurred on the server side.
* @throws PreconditionNotMetException
* The request failed because you did not complete all the prerequisite steps.
* @sample AWSSecretsManager.CreateSecret
* @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/CreateSecret"
target="_top">AWS
* API Documentation</a>
*/
/**
* <p>
* Stores a new encrypted secret value in the specified secret. To do this, the operation creates a new version and
* attaches it to the secret. The version can contain a new <code>SecretString</code> value or a new
* <code>SecretBinary</code> value. You can also specify the staging labels that are initially attached to the new
* version.
* </p>
* <note>
* <p>
* The Secrets Manager console uses only the <code>SecretString</code> field. To add binary data to a secret
with
* the <code>SecretBinary</code> field you must use the AWS CLI or one of the AWS SDKs.
* </p>
* </note>
* <ul>
* <li>
* <p>
* If this operation creates the first version for the secret then Secrets Manager automatically attaches the
* staging label <code>AWSCURRENT</code> to the new version.
* </p>
* </li>
* <li>
* <p>
* If another version of this secret already exists, then this operation does not automatically move any staging
* labels other than those that you explicitly specify in the <code>VersionStages</code> parameter.
* </p>
* </li>
* <li>
* <p>
* If this operation moves the staging label <code>AWSCURRENT</code> from another version to this version
(because
* you included it in the <code>StagingLabels</code> parameter) then Secrets Manager also automatically moves
the
* staging label <code>AWSPREVIOUS</code> to the version that <code>AWSCURRENT</code> was
removed from.
* </p>
* </li>
* </ul>

```

- \* `<p>`
- \* This operation is idempotent. If a version with a `<code>VersionId</code>` with the same value as the
- \* `<code>ClientRequestToken</code>` parameter already exists and you specify the same secret data, the operation
- \* succeeds but does nothing. However, if the secret data is different, then the operation fails because you cannot
- \* modify an existing version; you can only create new ones.
- \* `</p>`
- \* `</li>`
- \* `</ul>`
- \* `<note>`
- \* `<ul>`
- \* `<li>`
- \* `<p>`
- \* If you call an operation that needs to encrypt or decrypt the `<code>SecretString</code>` or
- \* `<code>SecretBinary</code>` for a secret in the same account as the calling user and that secret doesn't specify a
- \* AWS KMS encryption key, Secrets Manager uses the account's default AWS managed customer master key (CMK) with the
- \* alias `<code>aws/secretsmanager</code>`. If this key doesn't already exist in your account then Secrets Manager
- \* creates it for you automatically. All users in the same AWS account automatically have access to use the default
- \* CMK. Note that if an Secrets Manager API call results in AWS having to create the account's AWS-managed CMK, it
- \* can result in a one-time significant delay in returning the result.
- \* `</p>`
- \* `</li>`
- \* `<li>`
- \* `<p>`
- \* If the secret is in a different AWS account from the credentials calling an API that requires encryption or
- \* decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access the
- the
- \* default CMK for the account using credentials from a different AWS account. Store the ARN of the CMK in the
- \* secret when you create the secret or when you update it by including it in the `<code>KMSKeyId</code>`. If you call
- call
- \* an API that must encrypt or decrypt `<code>SecretString</code>` or `<code>SecretBinary</code>` using
- credentials from
- \* a different account then the AWS KMS key policy must grant cross-account access to that other account's user
- or
- \* role for both the `kms:GenerateDataKey` and `kms:Decrypt` operations.
- \* `</p>`
- \* `</li>`
- \* `</ul>`
- \* `</note>`
- \* `<p>`
- \* **Minimum permissions**
- \* `</p>`
- \* `<p>`
- \* To run this command, you must have the following permissions:
- \* `</p>`
- \* `<ul>`

- \* <li>
- \* <p>
- \* secretsmanager:PutSecretValue
- \* </p>
- \* </li>
- \* <li>
- \* <p>
- \* kms:GenerateDataKey - needed only if you use a customer-managed AWS KMS key to encrypt the secret. You do not
- \* need this permission to use the account's default AWS managed CMK for Secrets Manager.
- \* </p>
- \* </li>
- \* </ul>
- \* <p>
- \* <b>Related operations</b>
- \* </p>
- \* <ul>
- \* <li>
- \* <p>
- \* To retrieve the encrypted value you store in the version of a secret, use <a>GetSecretValue</a>.
- \* </p>
- \* </li>
- \* <li>
- \* <p>
- \* To create a secret, use <a>CreateSecret</a>.
- \* </p>
- \* </li>
- \* <li>
- \* <p>
- \* To get the details for a secret, use <a>DescribeSecret</a>.
- \* </p>
- \* </li>
- \* <li>
- \* <p>
- \* To list the versions attached to a secret, use <a>ListSecretVersionIds</a>.
- \* </p>
- \* </li>
- \* </ul>
- \*
- \* @param putSecretValueRequest
- \* @return Result of the PutSecretValue operation returned by the service.
- \* @throws InvalidParameterException
- \* You provided an invalid value for a parameter.
- \* @throws InvalidRequestException
- \* You provided a parameter value that is not valid for the current state of the resource.</p>
- \* <p>
- \* Possible causes:
- \* </p>

```

* <ul>
* <li>
* <p>
* You tried to perform the operation on a secret that's currently marked deleted.
* </p>
* </li>
* <li>
* <p>
* You tried to enable rotation on a secret that doesn't already have a Lambda function ARN configured and
* you didn't include such an ARN as a parameter in this call.
* </p>
* </li>
* @throws LimitExceededException
* The request failed because it would exceed one of the Secrets Manager internal limits.
* @throws EncryptionFailureException
* Secrets Manager can't encrypt the protected secret text using the provided KMS key. Check that the
* customer master key (CMK) is available, enabled, and not in an invalid state. For more information, see
* <a href="http://docs.aws.amazon.com/kms/latest/developerguide/key-state.html">How Key State Affects
Use
* of a Customer Master Key</a>.
* @throws ResourceExistsException
* A resource with the ID you requested already exists.
* @throws ResourceNotFoundException
* We can't find the resource that you asked for.
* @throws InternalServiceErrorException
* An error occurred on the server side.
* @sample AWSSecretsManager.PutSecretValue
* @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/PutSecretValue"
target="_top">AWS
* API Documentation</a>
*/
/**
* <p>
* Modifies many of the details of the specified secret. If you include a <code>ClientRequestToken</code> and
* <i>either</i> <code>SecretString</code> or <code>SecretBinary</code> then it also creates a new version
attached
* to the secret.
* </p>
* <p>
* To modify the rotation configuration of a secret, use <a>RotateSecret</a> instead.
* </p>
* <note>
* <p>
* The Secrets Manager console uses only the <code>SecretString</code> parameter and therefore limits you to
* encrypting and storing only a text string. To encrypt and store binary data as part of the version of a secret,
* you must use either the AWS CLI or one of the AWS SDKs.
* </p>
* </note>

```

- \* <ul>
- \* <li>
- \* <p>
- \* If a version with a <code>VersionId</code> with the same value as the <code>ClientRequestToken</code>

parameter

- \* already exists, the operation results in an error. You cannot modify an existing version, you can only create a
- \* new version.

- \* </p>

- \* </li>

- \* <li>

- \* <p>

- \* If you include <code>SecretString</code> or <code>SecretBinary</code> to create a new secret version,

Secrets

- \* Manager automatically attaches the staging label <code>AWSCURRENT</code> to the new version.

- \* </p>

- \* </li>

- \* </ul>

- \* <note>

- \* <ul>

- \* <li>

- \* <p>

- \* If you call an operation that needs to encrypt or decrypt the <code>SecretString</code> or

- \* <code>SecretBinary</code> for a secret in the same account as the calling user and that secret doesn't specify a

- \* AWS KMS encryption key, Secrets Manager uses the account's default AWS managed customer master key (CMK) with the

- \* alias <code>aws/secretsmanager</code>. If this key doesn't already exist in your account then Secrets Manager

- \* creates it for you automatically. All users in the same AWS account automatically have access to use the default

- \* CMK. Note that if an Secrets Manager API call results in AWS having to create the account's AWS-managed

CMK, it

- \* can result in a one-time significant delay in returning the result.

- \* </p>

- \* </li>

- \* <li>

- \* <p>

- \* If the secret is in a different AWS account from the credentials calling an API that requires encryption or

- \* decryption of the secret value then you must create and use a custom AWS KMS CMK because you can't access the

- \* default CMK for the account using credentials from a different AWS account. Store the ARN of the CMK in the

- \* secret when you create the secret or when you update it by including it in the <code>KMSKeyId</code>. If you call

- \* an API that must encrypt or decrypt <code>SecretString</code> or <code>SecretBinary</code> using credentials from

- \* a different account then the AWS KMS key policy must grant cross-account access to that other account's user or

- \* role for both the kms:GenerateDataKey and kms:Decrypt operations.

- \* </p>

- \* </li>

- \* </ul>

\* </note>

\* <p>

\* <b>Minimum permissions</b>

\* </p>

\* <p>

\* To run this command, you must have the following permissions:

\* </p>

\* <ul>

\* <li>

\* <p>

\* secretsmanager:UpdateSecret

\* </p>

\* </li>

\* <li>

\* <p>

\* kms:GenerateDataKey - needed only if you use a custom AWS KMS key to encrypt the secret. You do not need this

permission

\* permission to use the account's AWS managed CMK for Secrets Manager.

\* </p>

\* </li>

\* <li>

\* <p>

\* kms:Decrypt - needed only if you use a custom AWS KMS key to encrypt the secret. You do not need this

permission

\* to use the account's AWS managed CMK for Secrets Manager.

\* </p>

\* </li>

\* </ul>

\* <p>

\* <b>Related operations</b>

\* </p>

\* <ul>

\* <li>

\* <p>

\* To create a new secret, use <a>CreateSecret</a>.

\* </p>

\* </li>

\* <li>

\* <p>

\* To add only a new version to an existing secret, use <a>PutSecretValue</a>.

\* </p>

\* </li>

\* <li>

\* <p>

\* To get the details for a secret, use <a>DescribeSecret</a>.

\* </p>

\* </li>

\* <li>

\* <p>

\* To list the versions contained in a secret, use <a>ListSecretVersionIds</a>.

\* </p>

\* </li>

\* </ul>

\*

\* @param updateSecretRequest

\* @return Result of the UpdateSecret operation returned by the service.

\* @throws InvalidParameterException

\* You provided an invalid value for a parameter.

\* @throws InvalidRequestException

\* You provided a parameter value that is not valid for the current state of the resource.</p>

\* <p>

\* Possible causes:

\* </p>

\* <ul>

\* <li>

\* <p>

\* You tried to perform the operation on a secret that's currently marked deleted.

\* </p>

\* </li>

\* <li>

\* <p>

\* You tried to enable rotation on a secret that doesn't already have a Lambda function ARN configured and you didn't include such an ARN as a parameter in this call.

\* </p>

\* </li>

\* @throws LimitExceededException

\* The request failed because it would exceed one of the Secrets Manager internal limits.

\* @throws EncryptionFailureException

\* Secrets Manager can't encrypt the protected secret text using the provided KMS key. Check that the customer master key (CMK) is available, enabled, and not in an invalid state. For more information, see <a href="http://docs.aws.amazon.com/kms/latest/developerguide/key-state.html">How Key State Affects Use

\* of a Customer Master Key</a>.

\* @throws ResourceExistsException

\* A resource with the ID you requested already exists.

\* @throws ResourceNotFoundException

\* We can't find the resource that you asked for.

\* @throws MalformedPolicyDocumentException

\* The policy document that you provided isn't valid.

\* @throws InternalServiceErrorException

\* An error occurred on the server side.

\* @throws PreconditionNotMetException

\* The request failed because you did not complete all the prerequisite steps.

\* @sample AWSSecretsManager.UpdateSecret

\* @see <a href="http://docs.aws.amazon.com/goto/WebAPI/secretsmanager-2017-10-17/UpdateSecret" target="\_top">AWS

\* API Documentation</a>

\*/

Found in path(s):

\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-jar/com/amazonaws/services/secretsmanager/AWSSecretsManagerClient.java

\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-jar/com/amazonaws/services/secretsmanager/AWSSecretsManager.java

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\*/

Found in path(s):

\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-jar/com/amazonaws/services/secretsmanager/model/transform/PutSecretValueRequestMarshaller.java

\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-jar/com/amazonaws/services/secretsmanager/model/transform/CancelRotateSecretRequestMarshaller.java

\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-jar/com/amazonaws/services/secretsmanager/model/transform/UpdateSecretRequestProtocolMarshaller.java

\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-jar/com/amazonaws/services/secretsmanager/model/DescribeSecretRequest.java

\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-jar/com/amazonaws/services/secretsmanager/model/GetRandomPasswordResult.java

\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-jar/com/amazonaws/services/secretsmanager/model/transform/CreateSecretRequestMarshaller.java

\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-jar/com/amazonaws/services/secretsmanager/model/transform/PutResourcePolicyRequestProtocolMarshaller.java

\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-jar/com/amazonaws/services/secretsmanager/model/transform/RotateSecretResultJsonUnmarshaller.java

\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-jar/com/amazonaws/services/secretsmanager/model/transform/UpdateSecretRequestMarshaller.java

\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-jar/com/amazonaws/services/secretsmanager/model/transform/GetRandomPasswordRequestProtocolMarshaller.java

\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-

jar/com/amazonaws/services/secretsmanager/model/ListSecretVersionIdsRequest.java  
\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-  
jar/com/amazonaws/services/secretsmanager/model/transform/RotationRulesTypeMarshaller.java  
\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-  
jar/com/amazonaws/services/secretsmanager/model/Tag.java  
\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-  
jar/com/amazonaws/services/secretsmanager/model/GetResourcePolicyResult.java  
\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-  
jar/com/amazonaws/services/secretsmanager/model/transform/PutResourcePolicyRequestMarshaller.java  
\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-  
jar/com/amazonaws/services/secretsmanager/model/transform/GetResourcePolicyRequestMarshaller.java  
\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-  
jar/com/amazonaws/services/secretsmanager/model/transform/DescribeSecretRequestMarshaller.java  
\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-  
jar/com/amazonaws/services/secretsmanager/model/CancelRotateSecretRequest.java  
\* /opt/cola/permits/1411866792\_1662683683.0473826/0/aws-java-sdk-secretsmanager-1-11-409-sources-  
jar/com/amazonaws/services/secretsmanager/model/GetResourcePolicyRequest.java  
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## 1.50 error\_prone\_annotations 2.7.1

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- \* /opt/cola/permits/1288519880\_1647351834.56/0/error-prone-annotations-2-7-1-sources-jar/com/google/errorprone/annotations/OverridingMethodsMustInvokeSuper.java
  - \* /opt/cola/permits/1288519880\_1647351834.56/0/error-prone-annotations-2-7-1-sources-jar/com/google/errorprone/annotations/DoNotCall.java
  - \* /opt/cola/permits/1288519880\_1647351834.56/0/error-prone-annotations-2-7-1-sources-jar/com/google/errorprone/annotations/concurrent/GuardedBy.java
  - \* /opt/cola/permits/1288519880\_1647351834.56/0/error-prone-annotations-2-7-1-sources-jar/com/google/errorprone/annotations/CheckReturnValue.java
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Found in path(s):

\* /opt/cola/permits/1288519880\_1647351834.56/0/error-prone-annotations-2-7-1-sources-jar/com/google/errorprone/annotations/FormatString.java  
\* /opt/cola/permits/1288519880\_1647351834.56/0/error-prone-annotations-2-7-1-sources-jar/com/google/errorprone/annotations/CompatibleWith.java  
\* /opt/cola/permits/1288519880\_1647351834.56/0/error-prone-annotations-2-7-1-sources-jar/com/google/errorprone/annotations/RestrictedApi.java  
\* /opt/cola/permits/1288519880\_1647351834.56/0/error-prone-annotations-2-7-1-sources-jar/com/google/errorprone/annotations/MustBeClosed.java  
\* /opt/cola/permits/1288519880\_1647351834.56/0/error-prone-annotations-2-7-1-sources-jar/com/google/errorprone/annotations/DoNotMock.java  
\* /opt/cola/permits/1288519880\_1647351834.56/0/error-prone-annotations-2-7-1-sources-jar/com/google/errorprone/annotations/FormatMethod.java

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Found in path(s):

\* /opt/cola/permits/1288519880\_1647351834.56/0/error-prone-annotations-2-7-1-sources-jar/com/google/errorprone/annotations/Var.java  
\* /opt/cola/permits/1288519880\_1647351834.56/0/error-prone-annotations-2-7-1-sources-jar/com/google/errorprone/annotations/concurrent/LazyInit.java  
\* /opt/cola/permits/1288519880\_1647351834.56/0/error-prone-annotations-2-7-1-sources-jar/com/google/errorprone/annotations/IncompatibleModifiers.java  
\* /opt/cola/permits/1288519880\_1647351834.56/0/error-prone-annotations-2-7-1-sources-

```
jar/com/google/errorprone/annotations/RequiredModifiers.java
* /opt/cola/permits/1288519880_1647351834.56/0/error-prone-annotations-2-7-1-sources-
jar/com/google/errorprone/annotations/Immutable.java
* /opt/cola/permits/1288519880_1647351834.56/0/error-prone-annotations-2-7-1-sources-
jar/com/google/errorprone/annotations/CompileTimeConstant.java
* /opt/cola/permits/1288519880_1647351834.56/0/error-prone-annotations-2-7-1-sources-
jar/com/google/errorprone/annotations/SuppressPackageLocation.java
* /opt/cola/permits/1288519880_1647351834.56/0/error-prone-annotations-2-7-1-sources-
jar/com/google/errorprone/annotations/ForOverride.java
* /opt/cola/permits/1288519880_1647351834.56/0/error-prone-annotations-2-7-1-sources-
jar/com/google/errorprone/annotations/CanIgnoreReturnValue.java
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```
* /opt/cola/permits/1288519880_1647351834.56/0/error-prone-annotations-2-7-1-sources-
jar/com/google/errorprone/annotations/InlineMeValidationDisabled.java
* /opt/cola/permits/1288519880_1647351834.56/0/error-prone-annotations-2-7-1-sources-
jar/com/google/errorprone/annotations/InlineMe.java
```

## 1.51 aws-java-sdk-for-amazon-dynamodb

### 1.12.26

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## 1.52 junit-platform-junit-platform-commons

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* /opt/cola/permits/1341130306_1654757843.8643026/0/netty-transport-native-unix-common-4-1-72-final-sources-1-jar/io/netty/channel/unix/package-info.java
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* /opt/cola/permits/1341130306_1654757843.8643026/0/netty-transport-native-unix-common-4-1-72-final-sources-1-jar/io/netty/channel/unix/UnixChannelOption.java
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1-jar/io/netty/channel/unix/DomainDatagramChannel.java  
\* /opt/cola/permits/1341130306\_1654757843.8643026/0/netty-transport-native-unix-common-4-1-72-final-sources-1-jar/io/netty/channel/unix/DomainDatagramPacket.java  
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- \* /opt/cola/permits/1341130306\_1654757843.8643026/0/netty-transport-native-unix-common-4-1-72-final-sources-1-jar/netty\_unix\_filedescriptor.c
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- \* /opt/cola/permits/1341130306\_1654757843.8643026/0/netty-transport-native-unix-common-4-1-72-final-sources-1-jar/io/netty/channel/unix/Errors.java
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- \* /opt/cola/permits/1341130306\_1654757843.8643026/0/netty-transport-native-unix-common-4-1-72-final-sources-1-jar/netty\_unix\_socket.c
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# 1.61 jackson-core 2.13.0

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## 1.62 mockito-inline 3.11.2

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# 1.68 lz4-and-xxhash 1.7.1

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# 1.69 error\_prone\_annotations 2.3.4

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```

Found in path(s):

```
* /opt/cola/permits/1206718612_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-
jar/com/google/errorprone/annotations/concurrent/UnlockMethod.java
* /opt/cola/permits/1206718612_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-
jar/com/google/errorprone/annotations/concurrent/LockMethod.java
* /opt/cola/permits/1206718612_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-
jar/com/google/errorprone/annotations/NoAllocation.java
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```

Found in path(s):

```
* /opt/cola/permits/1206718612_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-
jar/com/google/errorprone/annotations/RestrictedApi.java
* /opt/cola/permits/1206718612_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-
```

jar/com/google/errorprone/annotations/DoNotMock.java  
\* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-  
jar/com/google/errorprone/annotations/CompatibleWith.java  
\* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-  
jar/com/google/errorprone/annotations/FormatMethod.java  
\* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-  
jar/com/google/errorprone/annotations/FormatString.java  
\* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-  
jar/com/google/errorprone/annotations/MustBeClosed.java  
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\* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-  
jar/com/google/errorprone/annotations/CheckReturnValue.java  
\* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-  
jar/com/google/errorprone/annotations/concurrent/GuardedBy.java  
\* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-  
jar/com/google/errorprone/annotations/OverridingMethodsMustInvokeSuper.java  
\* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-  
jar/com/google/errorprone/annotations/DoNotCall.java  
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- \* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-jar/com/google/errorprone/annotations/SuppressPackageLocation.java
- \* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-jar/com/google/errorprone/annotations/ForOverride.java
- \* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-jar/com/google/errorprone/annotations/IncompatibleModifiers.java
- \* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-jar/com/google/errorprone/annotations/concurrent/LazyInit.java
- \* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-jar/com/google/errorprone/annotations/RequiredModifiers.java
- \* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-jar/com/google/errorprone/annotations/Var.java
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- \* /opt/cola/permits/1206718612\_1632455182.54/0/error-prone-annotations-2-3-4-sources-9-jar/com/google/errorprone/annotations/CompileTimeConstant.java
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## 1.70 junit-jupiter-junit-jupiter-params 5.8.2

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\* /opt/ws\_local/PERMITS\_SQL/1046386584\_1590042070.56/0/checker-qual-2-5-5-sources-jar/org/checkerframework/checker/lock/qual/GuardedBy.java

# 1.73 aws-java-sdk-::-core-::-protocols-::-json- utils 2.17.52

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Manifest-Version: 1.0

Bundle-DocURL: <http://asm.ow2.org>

Bundle-License: BSD-3-Clause;link=<https://asm.ow2.io/LICENSE.txt>

Bundle-ManifestVersion: 2

Bundle-Name: org.objectweb.asm.commons

Bundle-RequiredExecutionEnvironment: J2SE-1.5

Bundle-SymbolicName: org.objectweb.asm.commons

Bundle-Version: 9.1.0

Export-Package: org.objectweb.asm.commons;version="9.1";uses:="org.objectweb.asm,org.objectweb.asm.signature,org.objectweb.asm.tree"

Implementation-Title: Usefull class adapters based on ASM, a very small and fast Java bytecode manipulation framework

Implementation-Version: 9.1

Import-Package: org.objectweb.asm;version="[9.1,10)",org.objectweb.asm.signature;version="[9.1,10)",org.objectweb.asm.tree;version="[9.1,10)"

Module-Requires: org.objectweb.asm;transitive=true,org.objectweb.asm.tree;transitive=true,org.objectweb.asm.tree.analysis;transitive=true

Found in path(s):

\* /opt/cola/permits/1183889887\_1627494130.56/0/asm-commons-9-1-jar/META-INF/MANIFEST.MF

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```
{% if site.thisScalaVersion != site.latestScalaVersion %}
```

```
<div class="version-notice">This is the specification of a previous version of Scala. See the <a href="{ { site.baseUrl } }/../{ { site.latestScalaVersion } }/">Scala { { site.latestScalaVersion } } spec</a>.</div>
```

```
{% endif %}
```

```
class C {
```

```
  val x: ((Int, Int) => Int) = (((a, b)) => a)
```

```
  val y: ((Int, Int, Int) => Int) = (((a, !)) => a)
```

```
  val z: ((Int, Int, Int) => Int) = (((a, NotAPatternVariableName, c)) => a)
```

```
}
```

```
Scala
```

```
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not-a-legal-formal-parameter-tuple.scala:2: error: not a legal formal parameter.

Note: Tuples cannot be directly destructured in method or function parameters.

Either create a single parameter accepting the Tuple2,  
or consider a pattern matching anonymous function: `{ case (a, b) => ... }`  
val x: ((Int, Int) => Int) = (((a, b)) => a)  
^

not-a-legal-formal-parameter-tuple.scala:3: error: not a legal formal parameter.  
Note: Tuples cannot be directly destructured in method or function parameters.

Either create a single parameter accepting the Tuple2,  
or consider a pattern matching anonymous function: `{ case (param1, param2) => ... }`  
val y: ((Int, Int, Int) => Int) = (((a, !)) => a)  
^

not-a-legal-formal-parameter-tuple.scala:4: error: not a legal formal parameter.  
Note: Tuples cannot be directly destructured in method or function parameters.

Either create a single parameter accepting the Tuple3,  
or consider a pattern matching anonymous function: `{ case (param1, ..., param3) => ... }`  
val z: ((Int, Int, Int) => Int) = (((a, NotAPatternVariableName, c)) => a)  
^

three errors found

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package scala.build

```
import sbt._, Keys._, plugins._
```

```
object License extends AutoPlugin {
```

```
  val licenseMapping = settingKey[Seq[(File, String)]]("LICENSE/NOTICE file mappings")
```

```
  override val requires = JvmPlugin
```

```
  override val trigger = AllRequirements
```

```
  override def projectSettings: Seq[Def.Setting[_]] =
```

```
    List(packageSrc, packageBin, packageDoc)
```

```
    .map(pkg => mappings in (Compile, pkg) += licenseMapping.value)
```

```
  override def buildSettings: Seq[Def.Setting[_]] = Seq(
```

```
    licenseMapping := List("LICENSE", "NOTICE").map(fn => (baseDirectory.value / fn) -> fn)
```

```
  )
```

```
}
```

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* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
jar/io/netty/handler/codec/redis/package-info.java
* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
jar/io/netty/handler/codec/redis/RedisMessagePool.java
* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
jar/io/netty/handler/codec/redis/ArrayRedisMessage.java
* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
jar/io/netty/handler/codec/redis/RedisCodecUtil.java
* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
jar/io/netty/handler/codec/redis/AbstractStringRedisMessage.java
* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
jar/io/netty/handler/codec/redis/LastBulkStringRedisContent.java
* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
jar/io/netty/handler/codec/redis/RedisMessage.java
* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
jar/io/netty/handler/codec/redis/ErrorRedisMessage.java
* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
jar/io/netty/handler/codec/redis/BulkStringHeaderRedisMessage.java
* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
jar/io/netty/handler/codec/redis/FixedRedisMessagePool.java
* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
jar/io/netty/handler/codec/redis/RedisDecoder.java
* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
jar/io/netty/handler/codec/redis/RedisCodecException.java
* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
jar/io/netty/handler/codec/redis/RedisBulkStringAggregator.java
* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
jar/io/netty/handler/codec/redis/RedisConstants.java
* /opt/cola/permits/1411866752_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-
```

jar/io/netty/handler/codec/redis/DefaultBulkStringRedisContent.java  
\* /opt/cola/permits/1411866752\_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-  
jar/io/netty/handler/codec/redis/RedisArrayAggregator.java  
\* /opt/cola/permits/1411866752\_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-  
jar/io/netty/handler/codec/redis/SimpleStringRedisMessage.java  
\* /opt/cola/permits/1411866752\_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-  
jar/io/netty/handler/codec/redis/RedisEncoder.java  
\* /opt/cola/permits/1411866752\_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-  
jar/io/netty/handler/codec/redis/BulkStringRedisContent.java  
\* /opt/cola/permits/1411866752\_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-  
jar/io/netty/handler/codec/redis/RedisMessageType.java  
\* /opt/cola/permits/1411866752\_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-  
jar/io/netty/handler/codec/redis/ArrayHeaderRedisMessage.java  
\* /opt/cola/permits/1411866752\_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-  
jar/io/netty/handler/codec/redis/IntegerRedisMessage.java  
\* /opt/cola/permits/1411866752\_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-  
jar/io/netty/handler/codec/redis/DefaultLastBulkStringRedisContent.java  
\* /opt/cola/permits/1411866752\_1662683824.9374516/0/netty-codec-redis-4-1-72-final-sources-1-  
jar/io/netty/handler/codec/redis/FullBulkStringRedisMessage.java

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# 1.79 junit-jupiter-aggregator 5.8.2

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jar/io/netty/resolver/dns/macos/package-info.java

\* /opt/cola/permits/1411866811\_1662689138.833735/0/netty-resolver-dns-classes-macos-4-1-72-final-sources-1-

jar/io/netty/resolver/dns/macos/MacOSDnsServerAddressStreamProvider.java

# 1.82 io-grpc-grpc-core 1.39.0

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## 1.86 project-lombok 1.18.12

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### 4.1.1.4

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\* /opt/ws\_local/PERMITS\_SQL/1014842714\_1591897072.99/0/annotations-4-1-1-4-sources-jar/android/annotation/TargetApi.java

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```
* /opt/cola/permits/1274702949_1645233644.02/0/error-prone-annotations-2-4-0-sources-
jar/com/google/errorprone/annotations/NoAllocation.java
* /opt/cola/permits/1274702949_1645233644.02/0/error-prone-annotations-2-4-0-sources-
jar/com/google/errorprone/annotations/concurrent/LockMethod.java
* /opt/cola/permits/1274702949_1645233644.02/0/error-prone-annotations-2-4-0-sources-
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\* /opt/cola/permits/1274702949\_1645233644.02/0/error-prone-annotations-2-4-0-sources-jar/com/google/errorprone/annotations/FormatString.java  
\* /opt/cola/permits/1274702949\_1645233644.02/0/error-prone-annotations-2-4-0-sources-jar/com/google/errorprone/annotations/CompatibleWith.java  
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\* /opt/cola/permits/1274702949\_1645233644.02/0/error-prone-annotations-2-4-0-sources-jar/com/google/errorprone/annotations/RequiredModifiers.java  
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* /opt/cola/permits/1274702949_1645233644.02/0/error-prone-annotations-2-4-0-sources-
jar/com/google/errorprone/annotations/ForOverride.java
* /opt/cola/permits/1274702949_1645233644.02/0/error-prone-annotations-2-4-0-sources-
jar/com/google/errorprone/annotations/Var.java
* /opt/cola/permits/1274702949_1645233644.02/0/error-prone-annotations-2-4-0-sources-
jar/com/google/errorprone/annotations/concurrent/LazyInit.java
* /opt/cola/permits/1274702949_1645233644.02/0/error-prone-annotations-2-4-0-sources-
jar/com/google/errorprone/annotations/IncompatibleModifiers.java
No license file was found, but licenses were detected in source scan.
```

```
/*
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*/
```

Found in path(s):

```
* /opt/cola/permits/1274702949_1645233644.02/0/error-prone-annotations-2-4-0-sources-
jar/com/google/errorprone/annotations/DoNotCall.java
* /opt/cola/permits/1274702949_1645233644.02/0/error-prone-annotations-2-4-0-sources-
jar/com/google/errorprone/annotations/OverridingMethodsMustInvokeSuper.java
* /opt/cola/permits/1274702949_1645233644.02/0/error-prone-annotations-2-4-0-sources-
jar/com/google/errorprone/annotations/CheckReturnValue.java
* /opt/cola/permits/1274702949_1645233644.02/0/error-prone-annotations-2-4-0-sources-
jar/com/google/errorprone/annotations/concurrent/GuardedBy.java
```

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Automatic-Module-Name: com.google.protobuf.util  
Bnd-LastModified: 1615494724341  
Build-Jdk: 1.8.0\_181-google-v7  
Built-By: acozzette  
Bundle-Description: Utilities for Protocol Buffers  
Bundle-DocURL: <https://developers.google.com/protocol-buffers/>  
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Bundle-Name: Protocol Buffers [Util]  
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Bundle-Version: 3.15.6  
Created-By: Apache Maven Bundle Plugin  
Export-Package: com.google.protobuf.util;version="3.15.6";uses:="com.google.protobuf"  
Import-Package: com.google.common.base;version="[30.0,31)",com.google.common.io;version="[30.0,31)",com.google.common.math;version="[30.0,31)",com.google.common.primitives;version="[30.0,31)",com.google.gson;version="[2.8,3)",com.google.gson.stream;version="[2.8,3)",com.google.protobuf;version="[3.15,4)"  
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.7))"  
Tool: Bnd-3.0.0.201509101326

Found in path(s):

\* /opt/cola/permits/1411866746\_1662690446.511798/0/protobuf-java-util-3-15-6-jar/META-INF/MANIFEST.MF

## 1.110 junit 4.12

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## 1.112 aws-glue-schema-registry-avro-serializer-deserializer 1.1.5

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-->

Found in path(s):

\* /opt/cola/permits/1411866722\_1662685569.8838844/0/schema-registry-serde-1-1-5-jar/META-INF/maven/software.amazon.glue/schema-registry-serde/pom.xml

## 1.113 apache-kafka 2.8.1

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# 1.114 netty-reactive-streams-http-support

## 2.0.5

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Manifest-Version: 1.0

Bundle-Description: Reactive streams implementation for Netty.

Automatic-Module-Name: com.typesafe.netty.http

Bundle-License: <http://www.apache.org/licenses/LICENSE-2.0.txt>

Bundle-SymbolicName: com.typesafe.netty.reactive-streams-http

Built-By: marcospereira

Bnd-LastModified: 1602622977569

Bundle-ManifestVersion: 2

Bundle-DocURL: <http://typesafe.com/>

Bundle-Vendor: Typesafe

Import-Package: com.typesafe.netty;version="[2.0,3)",io.netty.buffer;version="[4.1,5)",io.netty.channel;version="[4.1,5)",io.netty.handler.codec;version="[4.1,5)",io.netty.handler.codec.http;version="[4.1,5)",io.netty.handler.codec.http.websocketx;version="[4.1,5)",io.netty.util;version="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",org.reactivestreams;version="[1.0,2)"

Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.7))"

Tool: Bnd-3.5.0.201709291849

Export-Package: com.typesafe.netty.http;uses:="io.netty.channel,io.netty.handler.codec.http,io.netty.handler.codec.http.websocketx,org.reactivestreams";version="2.0.5"

Bundle-Name: Netty Reactive Streams HTTP support

Bundle-Version: 2.0.5

Created-By: Apache Maven Bundle Plugin

Build-Jdk: 1.8.0\_181

Found in path(s):

\* /opt/cola/permits/1128619532\_1649176822.43/0/netty-reactive-streams-http-2-0-5-jar/META-INF/MANIFEST.MF

# 1.115 jetbrains-kotlin-kotlin-scripting-compiler-embeddable 1.3.50

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# 1.116 opencensus-api 0.28.0

## 1.116.1 Available under license :

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 */
/**
 * API for resource information population.
 *
 * <p>The resource library primarily defines a type "Resource" that captures information about the
 * entity for which stats or traces are recorded. For example, metrics exposed by a Kubernetes
 * container can be linked to a resource that specifies the cluster, namespace, pod, and container
 * name.
 *
 * <p>Two environment variables are used to populate resource information:
 *
 * <ul>
 * <li>OC_RESOURCE_TYPE: A string that describes the type of the resource prefixed by a domain
 * namespace. Leading and trailing whitespaces are trimmed. e.g. "kubernetes.io/container".
 * <li>OC_RESOURCE_LABELS: A comma-separated list of labels describing the source in more detail,
 * e.g. "key1=val1,key2=val2". The allowed character set is appropriately constrained.
```

\* </ul>  
\*  
\* <p>Type, label keys, and label values MUST contain only printable ASCII (codes between 32 and  
\* 126, inclusive) and less than 256 characters. Type and label keys MUST have a length greater than  
\* zero. They SHOULD start with a domain name and separate hierarchies with / characters, e.g.  
\* k8s.io/namespace/name.  
\*  
\* <p>WARNING: Currently all the public classes under this package are marked as { @link  
\* io.opencensus.common.ExperimentalApi}. DO NOT USE except for experimental purposes.  
\*  
\* <p>Please see  
\* <https://github.com/census-instrumentation/opencensus-specs/blob/master/resource/Resource.md> for  
\* more details.  
\*/

Found in path(s):

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/resource/package-info.java

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Found in path(s):

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/DerivedLongGauge.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/trace/BigendianEncoding.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/LabelKey.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/internal/Utils.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/common/ServerStatsDeserializationException.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-

jar/io/opencensus/metrics/export/MetricProducer.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/common/package-info.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/export/Value.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/trace/Tracestate.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/export/MetricProducerManager.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/export/Point.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/common/ServerStats.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/common/ToLongFunction.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/DoubleGauge.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/MetricsComponent.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/trace/package-info.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/LongGauge.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/DerivedDoubleGauge.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/export/Distribution.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/internal/DefaultVisibilityForTesting.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/Metrics.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/export/TimeSeries.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/export/ExportComponent.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/common/ToDoubleFunction.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/stats/package-info.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/resource/Resource.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/trace/MessageEvent.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/export/Summary.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/trace/BaseMessageEvent.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-

jar/io/opencensus/metrics/LabelValue.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/export/Metric.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/common/ServerStatsEncoding.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/trace/internal/BaseMessageEventUtils.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/common/ServerStatsFieldEnums.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/export/MetricDescriptor.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/MetricRegistry.java  
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\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/tags/propagation/TagContextTextFormat.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/DerivedDoubleCumulative.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/DoubleCumulative.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/LongCumulative.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/data/AttachmentValue.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/DerivedLongCumulative.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/metrics/data/Exemplar.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/tags/TagMetadata.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/metrics/MetricOptions.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/metrics/data/package-info.java  
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\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/stats/ViewData.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/internal/StringUtils.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/stats/View.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/AttributeValue.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/stats/Measurement.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/Tracer.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/NetworkEvent.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/stats/ViewManager.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/Span.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/stats/Stats.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/Status.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-

jar/io/opencensus/common/Timestamp.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/common/OpenCensusLibraryInformation.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/trace/TraceId.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/internal/Provider.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/common/Function.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/trace/BlankSpan.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/trace/SpanContext.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/trace/TraceComponent.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/common/Duration.java

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jar/io/opencensus/trace/SpanBuilder.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/tags/propagation/TagContextDeserializationException.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/trace/unsafe/ContextUtils.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/tags/TagsComponent.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/tags/TagValue.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-  
jar/io/opencensus/trace/config/TraceConfig.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/propagation/SpanContextParseException.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/Sampler.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/common/ExperimentalApi.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/TraceOptions.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/export/SpanData.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/samplers/Samplers.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/common/Functions.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/stats/Measure.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/tags/Tags.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/tags/TagKey.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/internal/ZeroTimeClock.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/stats/BucketBoundaries.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/EndSpanOptions.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/export/ExportComponent.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/stats/AggregationData.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/tags/Tag.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/export/SampledSpanStore.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/common/Internal.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/internal/NoopScope.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/tags/InternalUtils.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/export/SpanExporter.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/propagation/TextFormat.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/stats/StatsCollectionState.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/samplers/NeverSampleSampler.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/tags/propagation/TagPropagationComponent.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/stats/StatsRecorder.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/tags/unsafe/ContextUtils.java

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\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/stats/StatsComponent.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/tags/TagContext.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/stats/MeasureMap.java

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\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/stats/NoopStats.java

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\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/SpanId.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/propagation/BinaryFormat.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/stats/Aggregation.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/tags/package-info.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/tags/propagation/TagContextSerializationException.java

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\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/common/Clock.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/samplers/AlwaysSampleSampler.java

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/config/TraceParams.java

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\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/tags/propagation/TagContextBinarySerializer.java  
\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/common/NonThrowingCloseable.java  
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\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/trace/samplers/ProbabilitySampler.java  
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\*/

/\*\*

\* This package describes the Metrics data model. Metrics are a data model for what stats exporters  
\* take as input. This data model may eventually become the wire format for metrics.

\*

\* <p>WARNING: Currently all the public classes under this package are marked as { @link

\* io.opencensus.common.ExperimentalApi}. The classes and APIs under { @link io.opencensus.metrics }

\* are likely to get backwards-incompatible updates in the future. DO NOT USE except for

\* experimental purposes.

\*

\* <p>Please see

\* <https://github.com/census-instrumentation/opencensus-specs/blob/master/stats/Metrics.md> and

\* <https://github.com/census-instrumentation/opencensus-proto/blob/master/opencensus/proto/stats/metrics/metrics.proto>

\* for more details.

\*/

Found in path(s):

\* /opt/cola/permits/1411867099\_1662683857.9450252/0/opencensus-api-0-28-0-sources-1-jar/io/opencensus/metrics/package-info.java

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tomb - support for clean goroutine termination in Go.

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# 1.121 caffeine-cache 3.0.3

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Found in path(s):

```
* /opt/cola/permits/1341639961_1654809995.3473003/0/caffeine-3-0-3-sources-
jar/com/github/benmanes/caffeine/cache/MpscGrowableArrayQueue.java
```

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```
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jar/com/github/benmanes/caffeine/cache/Ticker.java
```

```
* /opt/cola/permits/1341639961_1654809995.3473003/0/caffeine-3-0-3-sources-
jar/com/github/benmanes/caffeine/cache/stats/CacheStats.java
```

```
* /opt/cola/permits/1341639961_1654809995.3473003/0/caffeine-3-0-3-sources-
```

jar/com/github/benmanes/caffeine/cache/LinkedDeque.java  
\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-  
jar/com/github/benmanes/caffeine/cache/Policy.java  
\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-  
jar/com/github/benmanes/caffeine/cache/RemovalListener.java  
\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-  
jar/com/github/benmanes/caffeine/cache/stats/DisabledStatsCounter.java  
\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-  
jar/com/github/benmanes/caffeine/cache/Weigher.java  
\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-  
jar/com/github/benmanes/caffeine/cache/AsyncLoadingCache.java  
\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-  
jar/com/github/benmanes/caffeine/cache/BoundedLocalCache.java  
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jar/com/github/benmanes/caffeine/cache/Cache.java  
\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-  
jar/com/github/benmanes/caffeine/cache/RemovalCause.java  
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jar/com/github/benmanes/caffeine/cache/WriteOrderDeque.java  
\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-  
jar/com/github/benmanes/caffeine/cache/UnboundedLocalCache.java  
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jar/com/github/benmanes/caffeine/cache/AccessOrderDeque.java  
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jar/com/github/benmanes/caffeine/cache/stats/StatsCounter.java  
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jar/com/github/benmanes/caffeine/cache/stats/ConcurrentStatsCounter.java  
\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-  
jar/com/github/benmanes/caffeine/cache/Caffeine.java  
\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-  
jar/com/github/benmanes/caffeine/cache/LoadingCache.java  
\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-  
jar/com/github/benmanes/caffeine/cache/AbstractLinkedDeque.java  
\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-  
jar/com/github/benmanes/caffeine/cache/CacheLoader.java  
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jar/com/github/benmanes/caffeine/cache/StripedBuffer.java  
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jar/com/github/benmanes/caffeine/cache/Expiry.java  
\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-  
jar/com/github/benmanes/caffeine/cache/TimerWheel.java  
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\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-jar/com/github/benmanes/caffeine/cache/LocalAsyncCache.java

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\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-jar/com/github/benmanes/caffeine/cache/SSLSAR.java

\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-jar/com/github/benmanes/caffeine/cache/WILMWR.java  
\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-jar/com/github/benmanes/caffeine/cache/WSW.java  
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\* /opt/cola/permits/1341639961\_1654809995.3473003/0/caffeine-3-0-3-sources-jar/com/github/benmanes/caffeine/cache/WSLMSR.java

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Found in path(s):

```
* /opt/cola/permits/1341639961_1654809995.3473003/0/caffeine-3-0-3-sources-
jar/com/github/benmanes/caffeine/cache/Scheduler.java
* /opt/cola/permits/1341639961_1654809995.3473003/0/caffeine-3-0-3-sources-
jar/com/github/benmanes/caffeine/cache/Pacer.java
```

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```

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```

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jar/com/github/benmanes/caffeine/cache/stats/package-info.java
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* /opt/cola/permits/1341639961_1654809995.3473003/0/caffeine-3-0-3-sources-
jar/com/github/benmanes/caffeine/cache/LocalManualCache.java
```

## 1.122 jackson-databind 2.13.0

### 1.122.1 Available under license :

```
# Jackson JSON processor
```

Jackson is a high-performance, Free/Open Source JSON processing library. It was originally written by Tatu Saloranta (tatu.saloranta@iki.fi), and has been in development since 2007.

It is currently developed by a community of developers.

```
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## 1.123 netty/transport/classes/kqueue

### 4.1.72.Final

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* /opt/cola/permits/1411866943_1662690041.3508255/0/netty-transport-classes-kqueue-4-1-72-final-sources-1-jar/io/netty/channel/kqueue/KQueueDomainDatagramChannel.java
* /opt/cola/permits/1411866943_1662690041.3508255/0/netty-transport-classes-kqueue-4-1-72-final-sources-1-jar/io/netty/channel/kqueue/AbstractKQueueDatagramChannel.java
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- \* /opt/cola/permits/1411866943\_1662690041.3508255/0/netty-transport-classes-kqueue-4-1-72-final-sources-1-

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jar/io/netty/channel/kqueue/KQueueDatagramChannelConfig.java
* /opt/cola/permits/1411866943_1662690041.3508255/0/netty-transport-classes-kqueue-4-1-72-final-sources-1-
jar/io/netty/channel/kqueue/KQueueServerChannelConfig.java
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jar/io/netty/channel/kqueue/KQueueDatagramChannel.java
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jar/io/netty/channel/kqueue/KQueueRecvByteAllocatorHandle.java
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```

# 1.124 go-tomb-tomb 20150422-snapshot-dd632973

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tomb - support for clean goroutine termination in Go.

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\* /opt/cola/permits/1150153141\_1627681655.27/0/asm-9-1-sources-1-jar/org/objectweb/asm/TypeReference.java  
\* /opt/cola/permits/1150153141\_1627681655.27/0/asm-9-1-sources-1-jar/org/objectweb/asm/Context.java  
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\* /opt/cola/permits/1150153141\_1627681655.27/0/asm-9-1-sources-1-jar/org/objectweb/asm/ClassVisitor.java

## 1.126 jackson-annotations 2.13.0

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## 1.130 everit-json-schema 1.12.2

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Found in path(s):

\* /opt/cola/permits/1411867003\_1662683754.0293086/0/everit-json-schema-1-12-2-sources-2-jar/META-INF/maven/com.github.erosb/everit-json-schema/pom.xml

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\* /opt/cola/permits/1411867003\_1662683754.0293086/0/everit-json-schema-1-12-2-sources-2-

```
jar/org/everit/json/schema/JSONPointer.java
* /opt/cola/permits/1411867003_1662683754.0293086/0/everit-json-schema-1-12-2-sources-2-
jar/org/everit/json/schema/JSONPointerException.java
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```
*/
```

Found in path(s):

```
* /opt/cola/permits/1411867003_1662683754.0293086/0/everit-json-schema-1-12-2-sources-2-
jar/org/everit/json/schema/internal/JSONWriter.java
```

## 1.131 aws-event-stream 1.0.1

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```
* /opt/cola/permits/1411866775_1662683909.5230677/0/netty-transport-native-kqueue-4-1-72-final-sources-1-jar/netty_kqueue_bsdsocket.h
* /opt/cola/permits/1411866775_1662683909.5230677/0/netty-transport-native-kqueue-4-1-72-final-sources-1-jar/netty_kqueue_eventarray.h
* /opt/cola/permits/1411866775_1662683909.5230677/0/netty-transport-native-kqueue-4-1-72-final-sources-1-jar/netty_kqueue_native.c
* /opt/cola/permits/1411866775_1662683909.5230677/0/netty-transport-native-kqueue-4-1-72-final-sources-1-jar/netty_kqueue_bsdsocket.c
* /opt/cola/permits/1411866775_1662683909.5230677/0/netty-transport-native-kqueue-4-1-72-final-sources-1-jar/netty_kqueue_eventarray.c
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\* /opt/cola/permits/1411866775\_1662683909.5230677/0/netty-transport-native-kqueue-4-1-72-final-sources-1-jar/META-INF/maven/io.netty/netty-transport-native-kqueue/pom.xml

# 1.137 io-grpc-grpc-stub 1.39.0

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## 1.138 golang-org-x-errors 20200804-snapshot-5ec99f83

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## 1.139 golang-mock v1.6.0

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Ryan Barrett <ryanb@google.com>
package empty_interface

//go:generate mockgen -package empty_interface -destination mock.go -source input.go -
copyright_file=mock_copyright_header

type Empty interface{}
// This is a mock copyright header.
//
// Lorem ipsum dolor sit amet, consectetur adipiscing elit,
// sed do eiusmod tempor incididunt ut labore et dolore magna
// aliqua. Velit ut tortor pretium viverra suspendisse potenti.
//

// Code generated by MockGen. DO NOT EDIT.
// Source: input.go

// Package empty_interface is a generated GoMock package.
package empty_interface

import (
    gomock "github.com/golang/mock/gomock"
)

// MockEmpty is a mock of Empty interface.
type MockEmpty struct {
    ctrl    *gomock.Controller

```

```

recorder *MockEmptyMockRecorder
}

// MockEmptyMockRecorder is the mock recorder for MockEmpty.
type MockEmptyMockRecorder struct {
    mock *MockEmpty
}

// NewMockEmpty creates a new mock instance.
func NewMockEmpty(ctrl *gomock.Controller) *MockEmpty {
    mock := &MockEmpty{ctrl: ctrl}
    mock.recorder = &MockEmptyMockRecorder{mock}
    return mock
}

// EXPECT returns an object that allows the caller to indicate expected use.
func (m *MockEmpty) EXPECT() *MockEmptyMockRecorder {
    return m.recorder
}

```

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## 1.142 netty/resolver/dns/classes/macos

### 4.1.72.Final

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```
* /opt/cola/permits/1411867064_1662690034.0692346/0/netty-resolver-dns-classes-macos-4-1-72-final-sources-2-
jar/io/netty/resolver/dns/macos/DnsResolver.java
* /opt/cola/permits/1411867064_1662690034.0692346/0/netty-resolver-dns-classes-macos-4-1-72-final-sources-2-
jar/io/netty/resolver/dns/macos/package-info.java
* /opt/cola/permits/1411867064_1662690034.0692346/0/netty-resolver-dns-classes-macos-4-1-72-final-sources-2-
jar/io/netty/resolver/dns/macos/MacOSDnsServerAddressStreamProvider.java
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```
* /opt/cola/permits/1411867064_1662690034.0692346/0/netty-resolver-dns-classes-macos-4-1-72-final-sources-2-
jar/META-INF/maven/io.netty/netty-resolver-dns-classes-macos/pom.xml
```

# 1.143 amazon-kinesis-client-library-for-java

## 2.3.9

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*/opt/cola/permits/1411867094_1662685304.1152492/0/amazon-kinesis-client-2-3-9-jar/META-INF/maven/software.amazon.kinesis/amazon-kinesis-client/pom.xml
```

## 1.144 io-grpc-grpc-api 1.39.0

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## 1.147 assertj-fluent-assertions 3.22.0

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 */
/**
 * Base class for all implementations of assertions for { @link File}s.
 *
 * @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
 * target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
```

implementation</a>&quot;

\* for more details.

\*

\* @author David DIDIER

\* @author Yvonne Wang

\* @author Alex Ruiz

\* @author Olivier Michallat

\* @author Olivier Demeijer

\* @author Mikhail Mazursky

\* @author Jean-Christophe Gay

\* @author Valeriy Vyrva

\* @author Nikolaos Georgiou

\*/

Found in path(s):

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/AbstractFileAssert.java

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/\*\*

\* Base class for all implementations of assertions for { @link Float}s.

\*

\* @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY" target="\_blank">Emulating 'self types' using Java Generics to simplify fluent API

implementation</a>&quot;

implementation</a>&quot;

\* for more details.

\*

\* @author Drummond Dawson

\* @author Yvonne Wang

\* @author Alex Ruiz

\* @author Ansgar Konermann

\* @author Mikhail Mazursky

\* @author Nicolas François

\* @author Jin Kwon

\*/

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/\*\*

\* Base class for all implementations of assertions for { @code CharSequence}s.

\*

\* @param <SELF> the "self" type of this assertion class. Please read ["http://bit.ly/1IZIRcY"](http://bit.ly/1IZIRcY)

\* `target="_blank">Emulating 'self types' using Java Generics to simplify fluent API`

implementation</a>"

\* `for more details.`

\* @param <ACTUAL> the type of the "actual" value.

\*

\* @author Yvonne Wang

\* @author David DIDIER

\* @author Alex Ruiz

\* @author Joel Costigliola

\* @author Mikhail Mazursky

\* @author Nicolas Francois

\* @author Daniel Weber

\*/

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*/
/**
* Base class for all implementations of assertions for { @link Short}s.
*
* @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
*     target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
implementation</a>&quot;
*     for more details.
*
* @author Drummond Dawson
* @author Yvonne Wang
* @author David DIDIER
* @author Ansgar Konermann
* @author Alex Ruiz
* @author Mikhail Mazursky
* @author Nicolas François
* @author Cal027
*/
```

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```
* /opt/cola/permits/1341130270_1654817020.9922328/0/assertj-core-3-22-0-sources-
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/**
```

```
* Base class for all implementations of assertions for { @link Double}s.
*
* @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
*     target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
implementation</a>&quot;;
*     for more details.
*
* @author Drummond Dawson
* @author Yvonne Wang
* @author David DIDIER
* @author Alex Ruiz
* @author Ansgar Konermann
* @author Joel Costigliola
* @author Mikhail Mazursky
* @author Nicolas François
* @author Jack Gough
*/
```

Found in path(s):

```
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*/
/**
```

```
* Base class for all implementations of assertions for { @link List}s.
* @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
*     target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
implementation</a>&quot;;
*     for more details.
* @param <ACTUAL> the type of the "actual" value.
* @param <ELEMENT> the type of elements of the "actual" value.
* @param <ELEMENT_ASSERT> used for navigational assertions to return the right assert type.
*
* @author Yvonne Wang
```

\* @author Alex Ruiz  
\* @author Joel Costigliola  
\* @author Mikhail Mazursky  
\* @author Jacek Jackowiak  
\*/

Found in path(s):

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/AbstractListAssert.java

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\*/

/\*\*

\* Base class for all implementations of assertions for { @link Byte}s.

\*

\* @param <SELF> the "self" type of this assertion class. Please read ["http://bit.ly/1IZIRcY"](http://bit.ly/1IZIRcY)

\* `target="_blank">Emulating 'self types' using Java Generics to simplify fluent API`

implementation</a>&quot;

\* `for more details.`

\*

\* @author Drummond Dawson

\* @author Yvonne Wang

\* @author David DIDIER

\* @author Ansgar Konermann

\* @author Alex Ruiz

\* @author Mikhail Mazursky

\* @author Nicolas François

\* @author Cal027

\*/

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```

```
*/
/**
```

```
 * Base class for all implementations of assertions for { @link InputStream}s.
 * @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
 *     target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
 implementation</a>&quot;
 *     for more details.
 * @param <ACTUAL> the type of the "actual" value.
 *
 * @author Matthieu Baechler
 * @author Mikhail Mazursky
 * @author Stefan Birkner
 */
```

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```
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 jar/org/assertj/core/api/AbstractInputStreamAssert.java
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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldExist.java  
\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/internal/Boolean2DArrays.java  
\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/internal/IterableElementComparisonStrategy.java  
\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/JUnitBDDSoftAssertions.java  
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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/internal/WholeNumbers.java  
\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldBeRelativePath.java  
\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/uri/ShouldHaveQuery.java  
\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/BDDAssumptions.java  
\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldNotBeInstance.java  
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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/internal/Maps.java  
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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/AbstractArrayAssert.java  
\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldNotBeEqualComparingFieldByFieldRecursively.java  
\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/ObjectAssert.java  
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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ElementsShouldSatisfy.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/CharacterAssert.java

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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/EnumerableAssert.java

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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/util/diff/DiffAlgorithm.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldContainCharSequence.java

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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/BooleanArrayAssert.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ElementsShouldHaveAtLeast.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldBeReadable.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldContainExactly.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/matcher/AssertionMatcher.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/AbstractShouldHaveTextContent.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldBeNormalized.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldBeRegularFile.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/configuration/Configuration.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldBeCanonicalPath.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/recursive/comparison/RecursiveComparisonDifferenceCalculator.java

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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/util/ClassNameComparator.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldBeInterface.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/CharArrayAssert.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldBeBeforeYear.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldHaveSameHashCode.java

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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/ClassBasedNavigableListAssert.java  
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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldNotBeIn.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/internal/Spliterators.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldBeEqualByComparingOnlyGivenFields.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/util/PathNaturalOrderComparator.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/util/Hexadecimals.java

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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldContainRecursively.java

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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldBeGreaterOrEqual.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/future/ShouldNotBeCompleted.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/internal/InputStreamsException.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/util/introspection/IntrospectionError.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/Java6StandardSoftAssertionsProvider.java

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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/AtomicIntegerFieldUpdaterAssert.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/internal/CommonErrors.java

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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldContainEntry.java

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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldBeLessOrEqual.java

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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/Assert.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldNotHaveThrown.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldBeEqual.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/groups/Properties.java

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/UrlAssert.java  
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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/AtomicMarkableReferenceAssert.java  
\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/internal/Classes.java  
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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/JUnitJupiterSoftAssertions.java  
\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/error/ShouldNotContainOnlyWhitespaces.java  
\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/util/BigDecimalComparator.java  
\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/configuration/ConfigurationProvider.java  
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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/RecursiveComparisonAssert.java  
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\*/  
/\*\*  
\* Base class for all assertions.  
\*  
\* @param <SELF> the "self" type of this assertion class. Please read ["http://bit.ly/1IZIRcY"](http://bit.ly/1IZIRcY)  
\* `target="_blank">Emulating 'self types' using Java Generics to simplify fluent API  
implementation</a>`  
\* `for more details.`  
\* @param <ACTUAL> the type of the "actual" value.  
\*  
\* @author Alex Ruiz  
\* @author Joel Costigliola  
\* @author Mikhail Mazursky  
\* @author Nicolas François  
\*/

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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/AbstractAssert.java  
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```

```
*/
/**
```

```
 * Base class for all implementations of assertions for { @link Boolean}s.
 *
 * @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
 *     target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
 implementation</a>&quot;;
 *     for more details.
 *
 * @author Alex Ruiz
 * @author Yvonne Wang
 * @author David DIDIER
 * @author Ansgar Konermann
 * @author Mikhail Mazursky
 */
```

Found in path(s):

```
 * /opt/cola/permits/1341130270_1654817020.9922328/0/assertj-core-3-22-0-sources-
 jar/org/assertj/core/api/AbstractBooleanAssert.java
```

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 *
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```

```
/**
 * Base class for all implementations of assertions for {@link Object}s.
 *
 * @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
 *     target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
 * implementation</a>&quot;
 *     for more details.
 * @param <ACTUAL> the type of the "actual" value.
 *
 * @author Yvonne Wang
 * @author Alex Ruiz
 * @author Nicolas François
 * @author Mikhail Mazursky
 * @author Joel Costigliola
 * @author Libor Ondrusek
 */
```

Found in path(s):

```
* /opt/cola/permits/1341130270_1654817020.9922328/0/assertj-core-3-22-0-sources-
jar/org/assertj/core/api/AbstractObjectAssert.java
```

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 *
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 */
```

```
/**
 * Assertions methods applicable to groups of objects (e.g. arrays or collections.)
 *
 * @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
 *     target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
 * implementation</a>&quot;
 *     for more details.
 * @param <ELEMENT> the type of elements of the "actual" value.
 *
 * @author Yvonne Wang
 * @author Alex Ruiz
 * @author Nicolas François
 */
```

\* @author Mikhail Mazursky  
\* @author Joel Costigliola  
\* @author Nicolas François  
\* @author Florent Biville  
\*/

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\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/ObjectEnumerableAssert.java

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/\*\*

\* Base class for all implementations of assertions for { @link Date }s.

\* <p>

\* Note that assertions with date parameter comes with two flavor, one is obviously a { @link Date } and the other is a { @link String } representing a Date.<br>

\* For the latter, the default format follows ISO 8901 : "yyyy-MM-dd", user can override it with a custom format by calling { @link #withDateFormat(DateFormat) }.<br>

\* The user custom format will then be used for all next Date assertions (i.e not limited to the current assertion) in the test suite.<br>

\* To turn back to default format, simply call { @link #withDefaultDateFormatsOnly() }.

\*

\* @param <SELF> the "self" type of this assertion class. Please read "<a href='\"http://bit.ly/1IZIRcY\"'>

\* target='\_blank'>Emulating 'self types' using Java Generics to simplify fluent API implementation</a>" for more details.

\* @author Tomasz Nurkiewicz (thanks for giving assertions idea)

\* @author Joel Costigliola

\* @author Mikhail Mazursky

\* @author William Delanoue

\* @author Michal Kordas

\* @author Eddú Meléndez

\*/

Found in path(s):

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/AbstractDateAssert.java

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/\*\*

\* Base class for all implementations of assertions for { @link Integer}s.

\*

\* @param <SELF> the "self" type of this assertion class. Please read ["http://bit.ly/1IZIRcY"](http://bit.ly/1IZIRcY)

\* `target="_blank">Emulating 'self types' using Java Generics to simplify fluent API`

implementation</a>"

\* `for more details.`

\*

\* @author Drummond Dawson

\* @author Yvonne Wang

\* @author David DIDIER

\* @author Ansgar Konermann

\* @author Alex Ruiz

\* @author Joel Costigliola

\* @author Mikhail Mazursky

\* @author Nicolas François

\* @author Cal027

\*/

Found in path(s):

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/AbstractIntegerAssert.java

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*/
/**
* Base class for all implementations of assertions for { @link Map}s.
*
* @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
* target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
implementation</a>&quot;
* for more details.
* @param <ACTUAL> the type of the "actual" value.
* @param <K> the type of keys in the map.
* @param <V> the type of values in the map.
*
* @author David DIDIER
* @author Yvonne Wang
* @author Alex Ruiz
* @author Mikhail Mazursky
* @author Nicolas François
* @author dorzey
* @author Filip Hrisafov
*/

```

Found in path(s):

```

* /opt/cola/permits/1341130270_1654817020.9922328/0/assertj-core-3-22-0-sources-
jar/org/assertj/core/api/AbstractMapAssert.java

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*/
/**

```

```
* Base class for all implementations of assertions for { @link Collection}s.
* @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
*     target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
implementation</a>&quot;;
*     for more details.
* @param <ACTUAL> the type of the "actual" value.
* @param <ELEMENT> the type of elements of the "actual" value.
* @param <ELEMENT_ASSERT> used for navigational assertions to return the right assert type.
*
* @since 3.21.0
*/
```

Found in path(s):

```
*/opt/cola/permits/1341130270_1654817020.9922328/0/assertj-core-3-22-0-sources-
jar/org/assertj/core/api/AbstractCollectionAssert.java
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/**
* Base class for all implementations of assertions for { @link Throwable}s.
*
* @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
*     target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
implementation</a>&quot;;
*     for more details.
* @param <ACTUAL> the type of the "actual" value.
*
* @author David DIDIER
* @author Alex Ruiz
* @author Joel Costigliola
* @author Mikhail Mazursky
* @author Jack Gough
* @author Mike Gilchrist
*/
```

Found in path(s):

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/AbstractThrowableAssert.java

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\*/

/\*\*

\* Base class for all implementations of assertions for { @link Class }es.

\*

\* @param <SELF> the "self" type of this assertion class. Please read ["http://bit.ly/1IZIRcY"](http://bit.ly/1IZIRcY)

\* [target="\\_blank">Emulating 'self types' using Java Generics to simplify fluent API](#)

implementation</a>&quot;

\* for more details.

\*

\* @author William Delanoue

\* @author Mikhail Mazursky

\*/

Found in path(s):

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/AbstractClassAssert.java

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\*

```

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*/
/**
* Base class for implementations of <code>{@link ObjectEnumerableAssert}</code> whose actual value type is
* <code>{@link Collection}</code>.
*
* @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
*     target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
implementation</a>&quot;
*     for more details.
* @param <ACTUAL> the type of the "actual" value.
* @param <ELEMENT> the type of elements of the "actual" value.
* @param <ELEMENT_ASSERT> used for navigational assertions to return the right assert type.
*
* @author Yvonne Wang
* @author Alex Ruiz
* @author Mathieu Baechler
* @author Joel Costigliola
* @author Maciej Jaskowski
* @author Nicolas François
* @author Mikhail Mazursky
* @author Mateusz Haligowski
* @author Lovro Pandzic
* @author Marko Bekhta
*/

```

Found in path(s):

```

* /opt/cola/permits/1341130270_1654817020.9922328/0/assertj-core-3-22-0-sources-
jar/org/assertj/core/api/AbstractIterableAssert.java

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*/
/**
* Base class for all implementations of assertions for {@link BigDecimal}s.
*

```

```
* @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
*     target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
implementation</a>&quot;
*     for more details.
*
* @author Drummond Dawson
* @author David DIDIER
* @author Ted M. Young
* @author Yvonne Wang
* @author Alex Ruiz
* @author Joel Costigliola
* @author Mikhail Mazursky
*/
```

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```
* /opt/cola/permits/1341130270_1654817020.9922328/0/assertj-core-3-22-0-sources-
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*/
```

```
/**
* Base class for all implementations of assertions for { @link Character}s.
*
* @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
*     target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
implementation</a>&quot;
*     for more details.
*
* @author Yvonne Wang
* @author David DIDIER
* @author Ansgar Konermann
* @author Alex Ruiz
* @author Joel Costigliola
* @author Mikhail Mazursky
*/
```

Found in path(s):

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/AbstractCharacterAssert.java

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\*/

/\*\*

\* Base class for all implementations of assertions for { @link Long}s.

\*

\* @param <SELF> the "self" type of this assertion class. Please read ["http://bit.ly/1IZIRcY"](http://bit.ly/1IZIRcY)

\* [target="\\_blank">Emulating 'self types' using Java Generics to simplify fluent API implementation</a>](#)

\* [for more details.](#)

\*

\* @author Drummond Dawson

\* @author Yvonne Wang

\* @author David DIDIER

\* @author Ansgar Konermann

\* @author Alex Ruiz

\* @author Joel Costigliola

\* @author Mikhail Mazursky

\* @author Nicolas François

\* @author Cal027

\*/

Found in path(s):

\* /opt/cola/permits/1341130270\_1654817020.9922328/0/assertj-core-3-22-0-sources-jar/org/assertj/core/api/AbstractLongAssert.java

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/**
* Base class for all implementations of assertions for { @link LongAdder}s.
*
* @param <SELF> the "self" type of this assertion class. Please read &quot;<a href="http://bit.ly/1IZIRcY"
* target="_blank">Emulating 'self types' using Java Generics to simplify fluent API
implementation</a>&quot;
* for more details.
*
* @author Grzegorz Piwowarek
* @since 3.16.0
*/

```

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* /opt/cola/permits/1341130270_1654817020.9922328/0/assertj-core-3-22-0-sources-
jar/org/assertj/core/api/AbstractLongAdderAssert.java

```

# 1.148 jackson-dataformats-binary 2.13.0

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## 1.149 junit-jupiter-junit-jupiter-api 5.8.2

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* /opt/cola/permits/1183891316_1627493686.82/0/asm-analysis-9-1-sources-
jar/org/objectweb/asm/tree/analysis/BasicVerifier.java
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jar/org/objectweb/asm/tree/analysis/Analyzer.java
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jar/org/objectweb/asm/tree/analysis/SourceValue.java
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jar/org/objectweb/asm/tree/analysis/SimpleVerifier.java
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jar/org/objectweb/asm/tree/analysis/Interpreter.java
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jar/org/objectweb/asm/tree/analysis/BasicValue.java
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/**
 * Constructs a new {@link BasicInterpreter} for the latest ASM API version. <i>Subclasses must
 * not use this constructor</i>. Instead, they must use the {@link #BasicInterpreter(int)}
 * version.
 */
```

Found in path(s):

```
* /opt/cola/permits/1183891316_1627493686.82/0/asm-analysis-9-1-sources-  
jar/org/objectweb/asm/tree/analysis/BasicInterpreter.java
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```
/**
```

```
 * Constructs a new { @link SourceInterpreter } for the latest ASM API version. <i>Subclasses must
```

```
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```

```
 * version.
```

```
 */
```

Found in path(s):

```
* /opt/cola/permits/1183891316_1627493686.82/0/asm-analysis-9-1-sources-  
jar/org/objectweb/asm/tree/analysis/SourceInterpreter.java
```

# 1.154 gopherjs 20181205-snapshot-0766667c

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### 2.17.52

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# 1.159 jackson-databind 2.12.5

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It was originally written by Tatu Saloranta ([tatu.saloranta@iki.fi](mailto:tatu.saloranta@iki.fi)), and has been in development since 2007.

It is currently developed by a community of developers.

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# 1.160 slf4j-api-module 1.7.30

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# 1.161 handy-uri-templates handy-uri-templates-2.1.8

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<url><http://www.apache.org/licenses/LICENSE-2.0.txt></url>

Found in path(s):

\* /opt/cola/permits/1168630323\_1662743882.4324734/0/handy-uri-templates-2-1-8-jar/META-INF/maven/com.damnhandy/handy-uri-templates/pom.xml

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Manifest-Version: 1.0

Automatic-Module-Name: com.damnhandy.uri.template

Bnd-LastModified: 1558834247596

Build-Jdk: 11.0.3

Built-By: ryan

Bundle-Description: Handy URI Templates is a RFC6570 compliant URI template processor. The library allows clients to utilize templated URIs and inject replacement variables to expand the template into a URI. The library sports a fluent API, ability to plugin custom object renderers, and supports all levels of URI templates.

Bundle-DocURL: <https://github.com/damnhandy/Handy-URI-Templates>

Bundle-License: <http://www.apache.org/licenses/LICENSE-2.0.txt>

Bundle-ManifestVersion: 2

Bundle-Name: handy-uri-templates

Bundle-SymbolicName: com.damnhandy.handy-uri-templates  
Bundle-Vendor: Ryan J. McDonough  
Bundle-Version: 2.1.8  
Created-By: Apache Maven Bundle Plugin  
Export-Package: com.damnhandy.uri.template;version="2.1.8",com.damnhandy.uri.template.jackson.datatype;uses:="com.damnhandy.uri.template,com.fasterxml.jackson.core,com.fasterxml.jackson.databind,com.fasterxml.jackson.databind.module";version="2.1.8"  
Import-Package: com.fasterxml.jackson.core;version="[2.9,3)";resolution:=optional,com.fasterxml.jackson.databind;version="[2.9,3)";resolution:=optional,com.fasterxml.jackson.databind.module;version="[2.9,3)";resolution:=optional,org.joda.time;version="[2.10,3)",org.joda.time.format;version="[2.10,3)"  
key: value  
mode: development  
Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.7))"  
Tool: Bnd-4.2.0.201903051501  
url: <https://github.com/damnhandy/Handy-URI-Templates>

Found in path(s):

\* /opt/cola/permits/1168630323\_1662743882.4324734/0/handy-uri-templates-2-1-8-jar/META-INF/MANIFEST.MF

# 1.162 rxjava 2.1.14

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\*/

Found in path(s):

\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/internal/operators/flowable/FlowableOnBackpressureError.java

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 */
```

Found in path(s):

```
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/schedulers/ScheduledDirectTask.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/schedulers/SchedulerWhen.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/schedulers/ScheduledDirectPeriodicTask.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/schedulers/AbstractDirectTask.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/schedulers/InstantPeriodicTask.java
```

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```

Found in path(s):

```
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/schedulers/SchedulerPoolFactory.java
```

\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/BackpressureOverflowStrategy.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/annotations/package-info.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/internal/schedulers/ComputationScheduler.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/disposables/package-info.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/subjects/package-info.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/package-info.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/observables/package-info.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/processors/package-info.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/internal/schedulers/NewThreadScheduler.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/exceptions/CompositeException.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/internal/operators/flowable/FlowableGroupJoin.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/internal/operators/observable/ObservableJoin.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/internal/schedulers/IOScheduler.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/functions/package-info.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/internal/operators/flowable/FlowablePublishMulticast.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/internal/operators/observable/ObservableGroupJoin.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/subscribers/package-info.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/schedulers/package-info.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/internal/schedulers/TrampolineScheduler.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/observers/package-info.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/flowables/package-info.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/plugins/package-info.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/parallel/package-info.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/exceptions/package-info.java

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 */
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Found in path(s):

```
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/operators/parallel/ParallelMap.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/schedulers/ImmediateThinScheduler.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/observers/LambdaConsumerIntrospection.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/annotations/SchedulerSupport.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/operators/observable/ObservableDistinct.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/operators/single/SingleEquals.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/operators/flowable/FlowableBlockingSubscribe.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/operators/observable/ObservableIgnoreElements.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/util/BlockingIgnoringReceiver.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/operators/maybe/MaybeFlatMapCompletable.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/operators/single/SingleDoOnError.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/exceptions/MissingBackpressureException.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/operators/maybe/MaybeSwitchIfEmptySingle.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/observers/DeferredScalarObserver.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
jar/io/reactivex/internal/operators/flowable/FlowableGroupBy.java
* /opt/cola/permits/1411866817_1662683809.7862647/0/rxjava-2-1-14-sources-1-
```

jar/io/reactivex/internal/operators/observable/ObservableCount.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableReduceSeedSingle.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableFlatMap.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/util/EmptyComponent.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableSampleTimed.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/completable/CompletableMergeIterable.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableSkipWhile.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/maybe/MaybeDoAfterSuccess.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/maybe/MaybeIgnoreElement.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableTakeUntilPredicate.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/single/SingleDoOnDispose.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableRetryWhen.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/subscriptions/ScalarSubscription.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableWindowBoundarySupplier.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/parallel/ParallelFromPublisher.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/single/SingleTimer.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/single/SingleDelayWithObservable.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableSampleTimed.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableCache.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/mixed/ObservableConcatMapCompletable.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/util/LinkedList.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservablePublish.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/functions/BiConsumer.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/maybe/MaybeSwitchIfEmpty.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-

jar/io/reactivex/internal/operators/flowable/FlowableDoFinally.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/BlockingObservableMostRecent.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableSequenceEqualSingle.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableFromPublisher.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/functions/Cancellable.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableWithLatestFromMany.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableSequenceEqual.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/completable/CompletableFromUnsafeSource.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableDoAfterNext.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableFlatMapMaybe.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableOnErrorNext.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableHide.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableRefCount.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableRetryPredicate.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/disposables/SubscriptionDisposable.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/fuseable/SimpleQueue.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableTimeoutTimed.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/subscriptions/AsyncSubscription.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/functions/Consumer.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/ObservableTransformer.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableDistinctUntilChanged.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
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jar/io/reactivex/internal/operators/maybe/MaybeHide.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
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\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-

jar/io/reactivex/internal/operators/mixed/ObservableSwitchMapCompletable.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/schedulers/NewThreadWorker.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/schedulers/NonBlockingThread.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/maybe/MaybeDelay.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableScanSeed.java  
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jar/io/reactivex/internal/operators/single/SingleFlatMap.java  
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jar/io/reactivex/internal/operators/mixed/FlowableConcatMapCompletable.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
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\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/functions/Function4.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/internal/operators/maybe/MaybeFlatMapBiSelector.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/internal/disposables/SequentialDisposable.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/internal/operators/observable/ObservableMergeWithMaybe.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/subscribers/ResourceSubscriber.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/internal/operators/flowable/FlowableSkip.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-jar/io/reactivex/internal/operators/maybe/MaybeNever.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-

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\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
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\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
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\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
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\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
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\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
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\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableWindowBoundary.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/ObservableConverter.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableAmb.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/single/SingleInternalHelper.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/processors/UnicastProcessor.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/subscribers/BasicFuseableConditionalSubscriber.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableRange.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/single/SingleCreate.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableDelay.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableTimeInterval.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/processors/PublishProcessor.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/completable/CompletableDoOnEvent.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableBufferExactBoundary.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableTimer.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableTakeLast.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableTakeLastTimed.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/queue/SpSCArrayQueue.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableObserveOn.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableDetach.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableIgnoreElementsCompletable.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/single/SingleDelayWithPublisher.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/annotations/Experimental.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/single/SingleFromPublisher.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-

jar/io/reactivex/processors/FlowableProcessor.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/AbstractObservableWithUpstream.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/maybe/MaybeFlatMapNotification.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/subscribers/BlockingLastSubscriber.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/flowable/FlowableCollectSingle.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/maybe/MaybeZipArray.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/maybe/MaybeTakeUntilMaybe.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/maybe/MaybeFromCallable.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/observers/TestObserver.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/util/ExceptionHelper.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/functions/Functions.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/observable/ObservableElementAtMaybe.java  
\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/internal/operators/maybe/MaybeConcatArrayDelayError.java  
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\* /opt/cola/permits/1411866817\_1662683809.7862647/0/rxjava-2-1-14-sources-1-  
jar/io/reactivex/schedulers/SchedulerRunnableIntrospection.java

## 1.163 grpc-netty-shaded 1.39.0

### 1.163.1 Available under license :

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```
<?xml version="1.0" encoding="iso-8859-1"?>
```

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
```

```
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">
```

```
<head>
```

```
<meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
```

```
<title>EasyMock License</title>
```

```
<link rel="stylesheet" href="easymock.css" />
```

```
</head>
```

```
<body><div class="bodywidth">
```

```
<h2>
```

EasyMock 2 License (MIT License)

```
</h2>
```

```
<em>Copyright (c) 2001-2006 <a href="http://www.offis.de">OFFIS</a>, <a href="http://www.tammofreese.de">Tammo Freese</a>.</em>
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</div>

</body>

</html>

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## 1.167 io-grpc-grpc-protobuf 1.39.0

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\*/

Found in path(s):

\* /opt/cola/permits/1183891218\_1655096184.4932175/0/grpc-protobuf-1-39-0-sources-1-jar/io/grpc/protobuf/package-info.java

\* /opt/cola/permits/1183891218\_1655096184.4932175/0/grpc-protobuf-1-39-0-sources-1-jar/io/grpc/protobuf/StatusProto.java

\* /opt/cola/permits/1183891218\_1655096184.4932175/0/grpc-protobuf-1-39-0-sources-1-jar/io/grpc/protobuf/ProtoMethodDescriptorSupplier.java

\* /opt/cola/permits/1183891218\_1655096184.4932175/0/grpc-protobuf-1-39-0-sources-1-jar/io/grpc/protobuf/ProtoServiceDescriptorSupplier.java

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 */
```

Found in path(s):

```
* /opt/cola/permits/1183891218_1655096184.4932175/0/grpc-protobuf-1-39-0-sources-1-
jar/io/grpc/protobuf/ProtoUtils.java
```

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```
* /opt/cola/permits/1183891218_1655096184.4932175/0/grpc-protobuf-1-39-0-sources-1-
jar/io/grpc/protobuf/ProtoFileDescriptorSupplier.java
```

## 1.168 j2objc-annotations 1.3

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 */
```

Found in path(s):

```
 * /opt/cola/permits/1131003150_1612875443.99/0/j2objc-annotations-1-3-sources-3-
jar/com/google/j2objc/annotations/RetainedWith.java
 * /opt/cola/permits/1131003150_1612875443.99/0/j2objc-annotations-1-3-sources-3-
jar/com/google/j2objc/annotations/Property.java
 * /opt/cola/permits/1131003150_1612875443.99/0/j2objc-annotations-1-3-sources-3-
jar/com/google/j2objc/annotations/LoopTranslation.java
 * /opt/cola/permits/1131003150_1612875443.99/0/j2objc-annotations-1-3-sources-3-
jar/com/google/j2objc/annotations/ObjectiveCName.java
 * /opt/cola/permits/1131003150_1612875443.99/0/j2objc-annotations-1-3-sources-3-
jar/com/google/j2objc/annotations/ReflectionSupport.java
 * /opt/cola/permits/1131003150_1612875443.99/0/j2objc-annotations-1-3-sources-3-
jar/com/google/j2objc/annotations/RetainedLocalRef.java
 * /opt/cola/permits/1131003150_1612875443.99/0/j2objc-annotations-1-3-sources-3-
jar/com/google/j2objc/annotations/J2ObjCIncompatible.java
```

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Found in path(s):

\* /opt/cola/permits/1131003150\_1612875443.99/0/j2objc-annotations-1-3-sources-3-jar/com/google/j2objc/annotations/Weak.java

\* /opt/cola/permits/1131003150\_1612875443.99/0/j2objc-annotations-1-3-sources-3-jar/com/google/j2objc/annotations/AutoreleasePool.java

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### 2.17.52

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# 1.178 go-check-check 20190902-snapshot-41f04d3b

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src/test/org/apache/commons/codec/language/DoubleMetaphoneTest.java

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# 1.186 aws-java-sdk-::-http-clients-::-url-connection 2.17.52

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# 1.187 slf4j-api-module 1.7.32

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```

Found in path(s):

```
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-jar/org/slf4j/MDC.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-jar/org/slf4j/Logger.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/impl/StaticMDCBinder.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/spi/MarkerFactoryBinder.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/helpers/BasicMarkerFactory.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/helpers/SubstituteLogger.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-jar/org/slf4j/LoggerFactory.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/helpers/BasicMDCAdapter.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-jar/org/slf4j/MarkerFactory.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
```

```

jar/org/slf4j/helpers/SubstituteLoggerFactory.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-jar/org/slf4j/Marker.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-jar/org/slf4j/helpers/BasicMarker.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/helpers/MarkerIgnoringBase.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-jar/org/slf4j/helpers/NOPLogger.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/spi/LocationAwareLogger.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/helpers/NOPMDCAdapter.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/helpers/NOPLoggerFactory.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/impl/StaticMarkerBinder.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/impl/StaticLoggerBinder.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/spi/LoggerFactoryBinder.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-jar/org/slf4j/IMarkerFactory.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-jar/org/slf4j/ILoggerFactory.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-jar/org/slf4j/helpers/Util.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/helpers/MessageFormatter.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-jar/org/slf4j/spi/MDCAdapter.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/helpers/NamedLoggerBase.java
* /opt/cola/permits/1267277703_1648511906.32/0/slf4j-api-1-7-32-sources-
jar/org/slf4j/helpers/FormattingTuple.java

```

# 1.188 google-api-grpc-proto-google-common-protos 2.0.1

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```

Found in path(s):

```

* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-
jar/google/api/launch_stage.proto

```

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```
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/label.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/type/postal_address.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/type/datetime.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/source_info.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/type/quaternion.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/field_behavior.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/type/latlng.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/httpbody.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/type/money.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/logging/type/http_request.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/type/calendar_period.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/rpc/code.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/geo/type/viewport.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/client.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/longrunning/operations.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/billing.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/backend.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/consumer.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/type/fraction.proto  
* /opt/cola/permits/1337069512_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-
```

jar/google/api/system\_parameter.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/rpc/status.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/documentation.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/http.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/rpc/context/attribute\_context.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/quota.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/type/date.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/logging.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/cloud/audit/audit\_log.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/distribution.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/config\_change.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/metric.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/type/dayofweek.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/endpoint.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/usage.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/auth.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/type/expr.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/log.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/annotations.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/service.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/monitoring.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/api/resource.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/logging/type/log\_severity.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-  
jar/google/type/color.proto  
\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-

jar/google/rpc/error\_details.proto

\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-

jar/google/api/context.proto

\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-

jar/google/type/timeofday.proto

\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-

jar/google/api/control.proto

\* /opt/cola/permits/1337069512\_1654218326.7907567/0/proto-google-common-protos-2-0-1-1-

jar/google/api/monitored\_resource.proto

# 1.189 jackson-annotations 2.12.5

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Found in path(s):

\* /opt/cola/permits/1331306087\_1662690272.2162187/0/netty-transport-native-epoll-4-1-68-final-jar/META-INF/maven/io.netty/netty-transport-native-epoll/pom.xml

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Manifest-Version: 1.0

Implementation-Title: Netty/Transport/Native/Epoll

Bundle-Description: Netty is an asynchronous event-driven network application framework for rapid development of maintainable high performance protocol servers and clients.

Automatic-Module-Name: io.netty.transport.epoll

Bundle-License: <https://www.apache.org/licenses/LICENSE-2.0>

Bundle-SymbolicName: io.netty.transport-native-epoll

Implementation-Version: 4.1.68.Final

Built-By: root

Bnd-LastModified: 1631193593222

Bundle-ManifestVersion: 2

Implementation-Vendor-Id: io.netty

Bundle-DocURL: <https://netty.io/>

Bundle-Vendor: The Netty Project

Import-Package: io.netty.buffer;version="[4.1,5)",io.netty.channel,io.netty.channel.socket;version="[4.1,5)",io.netty.channel.unix;version="[4.1,5)",io.netty.util;version="[4.1,5)",io.netty.util.collection;version="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",io.netty.util.internal;version="[4.1,5)",io.netty.util.internal.logging;version="[4.1,5)",sun.nio.ch;resolution:=optional,org.eclipse.jetty.npn;version="[1,2)";resolution:=optional,org.eclipse.jetty.alpn;version="[1,2)";resolution:=optional

Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.6))"

Tool: Bnd-2.4.1.201501161923

Implementation-Vendor: The Netty Project

Export-Package: io.netty.channel.epoll;uses:="io.netty.buffer,io.netty.channel,io.netty.channel.socket,io.netty.channel.unix,io.netty.util,io.netty.util.concurrent";version="4.1.68"

Bundle-Name: Netty/Transport/Native/Epoll

Bundle-Version: 4.1.68.Final

Created-By: Apache Maven Bundle Plugin

Build-Jdk: 1.8.0\_292

Implementation-URL: <https://netty.io/netty-transport-native-epoll/>

Found in path(s):

\* /opt/cola/permits/1331306087\_1662690272.2162187/0/netty-transport-native-epoll-4-1-68-final-jar/META-INF/MANIFEST.MF

## 1.191 protobuf v1.27.1

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# 1.194 kubernetes-apimachinery 20191123-snapshot-4c4803ed

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# 1.195 apache-http-client 4.5.13

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Found in path(s):

```
* /opt/cola/permits/1168630308_1622041949.67/0/kotlin-script-runtime-1-3-50-sources-4-
jar/kotlin/script/extensions/samWithReceiver.kt
* /opt/cola/permits/1168630308_1622041949.67/0/kotlin-script-runtime-1-3-50-sources-4-
jar/kotlin/script/dependencies/resolvers_deprecated.kt
* /opt/cola/permits/1168630308_1622041949.67/0/kotlin-script-runtime-1-3-50-sources-4-
jar/kotlin/script/dependencies/dependencies_deprecated.kt
* /opt/cola/permits/1168630308_1622041949.67/0/kotlin-script-runtime-1-3-50-sources-4-
jar/kotlin/script/experimental/dependencies/resolvers.kt
* /opt/cola/permits/1168630308_1622041949.67/0/kotlin-script-runtime-1-3-50-sources-4-
jar/kotlin/script/templates/annotations.kt
* /opt/cola/permits/1168630308_1622041949.67/0/kotlin-script-runtime-1-3-50-sources-4-
jar/kotlin/script/experimental/dependencies/dependencies.kt
* /opt/cola/permits/1168630308_1622041949.67/0/kotlin-script-runtime-1-3-50-sources-4-
jar/kotlin/script/experimental/dependencies/AsyncDependenciesResolver.kt
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\*/opt/cola/permits/1168630308\_1622041949.67/0/kotlin-script-runtime-1-3-50-sources-4-jar/kotlin/script/templates/standard/templates.kt

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# 1.203 kr-pretty 0.1.0

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## 1.204 apache-httpcomponents-core 4.4.13

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## 1.205 google-uuid v.1.1.2

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Paul Borman <borman@google.com>

bmatsuo

shawnps

theory

jboverfelt

dsymonds

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# 1.207 netty-reactive-streams-implementation

## 2.0.5

### 1.207.1 Available under license :

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Manifest-Version: 1.0

Bundle-Description: Reactive streams implementation for Netty.

Automatic-Module-Name: com.typesafe.netty.core

Bundle-License: <http://www.apache.org/licenses/LICENSE-2.0.txt>

Bundle-SymbolicName: com.typesafe.netty.reactive-streams

Built-By: marcospereira

Bnd-LastModified: 1602622953847

Bundle-ManifestVersion: 2

Bundle-DocURL: <http://typesafe.com/>

Bundle-Vendor: Typesafe

Import-Package: io.netty.channel;version="[4.1,5)",io.netty.util;versi

on="[4.1,5)",io.netty.util.concurrent;version="[4.1,5)",io.netty.util

.internal;version="[4.1,5)",org.reactivestreams;version="[1.0,2)"

Require-Capability: osgi.ee;filter="(&(osgi.ee=JavaSE)(version=1.7))"

Tool: Bnd-3.5.0.201709291849

Export-Package: com.typesafe.netty;uses:="io.netty.channel,io.netty.ut

il.concurrent,org.reactivestreams";version="2.0.5"

Bundle-Name: Netty Reactive Streams Implementation

Bundle-Version: 2.0.5

Created-By: Apache Maven Bundle Plugin

Build-Jdk: 1.8.0\_181

Found in path(s):

\* /opt/cola/permits/1128619582\_1649176967.68/0/netty-reactive-streams-2-0-5-jar/META-INF/MANIFEST.MF

# 1.208 aws-glue-schema-registry-common

## 1.1.5

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*/  
-->
```

Found in path(s):

```
* /opt/cola/permits/1411866810_1662685628.3642151/0/schema-registry-common-1-1-5-jar/META-  
INF/maven/software.amazon.glue/schema-registry-common/pom.xml
```

# 1.209 google-gson 2.8.6

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## 1.210 kotlin-reflect 1.3.50

### 1.210.1 Available under license :

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```

Found in path(s):

```
*/opt/cola/permits/1136558942_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-
jar/kotlin/reflect/jvm/internal/impl/renderer/KeywordStringsGenerated.java
```

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 */
```

\*/

Found in path(s):

- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/storage/StorageManager.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/VariableDescriptorWithAccessors.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/types/DisjointKeysUnionTypeSubstitution.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/descriptors/DeserializedMemberScope.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/incremental/components/LookupTracker.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/load/java/descriptors/JavaMethodDescriptor.java
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/KProperty0Impl.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/annotations/AnnotationUseSiteTarget.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/KTypeImpl.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/VariableDescriptorWithInitializerImpl.java
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/ParameterDescriptor.java
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/load/java/components/DescriptorResolverUtils.java
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/VariableDescriptor.java
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/incremental/components/LookupLocation.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/annotations/AnnotatedImpl.java
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/AbstractScopeAdapter.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/load/kotlin/KotlinClassFinder.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/MemberDescriptor.java
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/name/SpecialNames.java
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/name/Name.java
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/receivers/TransientReceiver.java
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/PropertyGetterDescriptorImpl.java
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-

jar/kotlin/reflect/jvm/internal/EmptyContainerForLocal.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/pcollections/IntTree.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/builtins/functions/BuiltInFictitiousFunctionClassFactory.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/KClassImpl.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/ReflectProperties.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/annotations/AnnotationArgumentVisitor.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/SimpleFunctionDescriptor.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/AnnotatedCallableKind.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/components/ReflectAnnotationSource.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/PropertyDescriptor.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/load/java/lazy/ModuleClassResolver.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/load/java/components/JavaResolverCache.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/PackageViewDescriptor.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/load/java/descriptors/JavaClassDescriptor.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/annotations/AnnotationDescriptorImpl.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/load/java/structure/annotationArguments.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/receivers/Receiver.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/ModuleDescriptor.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/components/RuntimeErrorReporter.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/InnerClassesScopeWrapper.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/util.kt  
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jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/LazyPackageViewDescriptorImpl.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/structure/ReflectJavaElement.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/AnnotationAndConstantLoaderImpl.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-

jar/kotlin/reflect/jvm/internal/impl/load/java/FieldOverridabilityCondition.kt  
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jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/CompositePackageFragmentProvider.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/DeclarationDescriptorVisitorEmptyBodies.java  
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jar/kotlin/reflect/jvm/internal/impl/descriptors/PackageFragmentProviderImpl.kt  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
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jar/kotlin/reflect/jvm/internal/impl/load/kotlin/KotlinJvmBinaryPackageSourceElement.kt  
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jar/kotlin/reflect/jvm/reflectLambda.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/incremental/Utils.kt  
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jar/kotlin/reflect/jvm/internal/impl/builtins/DefaultBuiltIns.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/SubstitutingScope.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/PropertyGetterDescriptor.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/KProperty2Impl.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/LazyClassReceiverParameterDescriptor.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
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jar/kotlin/reflect/jvm/internal/impl/types/DescriptorSubstitutor.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/load/kotlin/JavaClassDataFinder.kt  
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jar/kotlin/reflect/jvm/internal/impl/descriptors/ValueParameterDescriptor.kt  
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jar/kotlin/reflect/jvm/internal/impl/descriptors/annotations/KotlinRetention.kt  
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jar/kotlin/reflect/jvm/internal/impl/descriptors/VariableAccessorDescriptor.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/load/java/lazy/resolvers.kt  
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jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/PropertyAccessorDescriptorImpl.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
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jar/kotlin/reflect/jvm/internal/impl/util/ModuleVisibilityHelper.kt  
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jar/kotlin/reflect/jvm/internal/impl/builtins/CompanionObjectMapping.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/pcollections/IntTreePMap.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/resolve/VisibilityUtil.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/ReflectionObjectRenderer.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/load/kotlin/header/KotlinClassHeader.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/annotations/AnnotationDescriptor.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/typeParameterUtils.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/KCallablesJvm.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/ProtoEnumFlags.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/load/java/sources/JavaSourceElementFactory.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/LazyScopeAdapter.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/utills/Printer.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/utills/WrappedValues.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/SimpleFunctionDescriptorImpl.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/moduleByClassLoader.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/kClassCache.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-

jar/kotlin/reflect/jvm/internal/KProperty1Impl.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/PropertyAccessorDescriptor.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/pcollections/HashPMap.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/resolve/constants/constantValues.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/receivers/ImplicitReceiver.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/receivers/ExtensionReceiver.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/KFunctionImpl.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/receivers/ReceiverValue.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/resolve/MemberComparator.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/load/java/lazy/LazyJavaPackageFragmentProvider.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/DeclarationDescriptorVisitor.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/impl/exceptionUtils.kt  
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jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/AbstractLazyTypeParameterDescriptor.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/ReceiverParameterDescriptor.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/types/Variance.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/load/java/JavaIncompatibilityRulesOverridabilityCondition.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/descriptors/DeserializedPackageMemberScope.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/load/java/components/SignaturePropagator.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/ReceiverParameterDescriptorImpl.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/impl/impl/addToStdlib.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/ReflectJvmMapping.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/ValueParameterDescriptorImpl.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/SupertypeLoopChecker.kt  
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jar/kotlin/reflect/jvm/internal/impl/resolve/jvm/JavaDescriptorResolver.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-

jar/kotlin/reflect/jvm/internal/impl/load/java/components/JavaAnnotationMapper.kt  
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jar/kotlin/reflect/jvm/internal/impl/load/java/descriptors/JavaPropertyDescriptor.java  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/DeclarationDescriptorNonRootImpl.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/DeserializedPackageFragment.kt  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/load/kotlin/KotlinJvmBinarySourceElement.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/AnnotationAndConstantLoader.kt  
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jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/receivers/AbstractReceiverValue.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/KPackageImpl.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/LocalClassifierTypeSettings.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-

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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/types/checker/TypeCheckingProcedureCallbacks.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/EffectiveVisibility.kt  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/DeclarationDescriptor.java  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/pcollections/ConsPStack.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/load/java/JavaVisibilities.java  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/TypeParameterDescriptorImpl.java  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/ProtoContainer.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/builtins/PrimitiveType.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-

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jar/kotlin/reflect/jvm/internal/impl/resolve/constants/ConstantValueFactory.kt
* /opt/cola/permits/1136558942_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-
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* /opt/cola/permits/1136558942_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-
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* /opt/cola/permits/1136558942_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-
jar/kotlin/reflect/jvm/internal/impl/load/kotlin/JvmPackagePartSource.kt
* /opt/cola/permits/1136558942_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-
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* /opt/cola/permits/1136558942_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-
jar/kotlin/reflect/jvm/internal/impl/descriptors/PropertySetterDescriptor.java
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*/
// A seemingly obvious way to come about this case would be to declare a special exception class, but the problem is
that
```

Found in path(s):

```
* /opt/cola/permits/1136558942_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-
jar/kotlin/reflect/jvm/internal/impl/storage/LockBasedStorageManager.java
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```
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```

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- \*/

Found in path(s):

- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/components/ReflectKotlinClassFinder.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/types/checker/IntersectionType.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/PropertyDescriptorImpl.java
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/resolve/scopes/SyntheticScopes.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/types/SpecialTypes.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/components/RuntimeSourceElementFactory.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/structure/ReflectJavaAnnotation.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/deserialization/PlatformDependentDeclarationFilter.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/Substitutable.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/structure/ReflectJavaValueParameter.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/builtins/BuiltInsLoader.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/types/checker/NewKotlinTypeChecker.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/types/TypeWithEnhancement.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/structure/ReflectJavaAnnotationOwner.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/load/java/JavaClassesTracker.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/DeserializedPackageFragmentImpl.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/load/java/lazy/descriptors/LazyJavaScope.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/load/java/descriptors/JavaClassConstructorDescriptor.java
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/Visibilities.java
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/structure/ReflectJavaClassifierType.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/ContractDeserializer.kt
- \* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-

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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/structure/ReflectJavaTypeParameter.kt  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-  
jar/kotlin/reflect/jvm/internal/impl/load/java/lazy/descriptors/LazyJavaStaticClassScope.kt  
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jar/kotlin/reflect/jvm/internal/impl/descriptors/Modality.kt

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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/Utils/SmartList.java

\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/ClassifierDescriptor.java

\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/serialization/deserialization/IncompatibleVersionErrorData.kt

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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/full/exceptions.kt

\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/types/IntersectionTypeConstructor.kt

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\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/resolve/calls/inference/CapturedTypeConstructor.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/AbstractTypeParameterDescriptor.java  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/annotations/Annotations.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/load/java/components/JavaPropertyInitializerEvaluator.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/ClassConstructorDescriptor.kt  
\* /opt/cola/permits/1136558942\_1613789270.78/0/kotlin-reflect-1-3-50-sources-3-jar/kotlin/reflect/jvm/internal/impl/descriptors/impl/AbstractTypeAliasDescriptor.kt

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## 1.215 aws-java-sdk-http-client-interface

### 2.17.52

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Bundle-ManifestVersion: 2  
Bundle-Name: org.objectweb.asm.tree  
Bundle-RequiredExecutionEnvironment: J2SE-1.5  
Bundle-SymbolicName: org.objectweb.asm.tree  
Bundle-Version: 9.1.0  
Export-Package: org.objectweb.asm.tree;version="9.1";uses:="org.objectweb.asm"  
Implementation-Title: Tree API of ASM, a very small and fast Java byte code manipulation framework  
Implementation-Version: 9.1  
Import-Package: org.objectweb.asm;version="[9.1,10)"  
Module-Requires: org.objectweb.asm;transitive=true

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