

Quiz Submissions - Arrays and Half-open Ranges Reading Quiz



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Attempt 1

Written: Jan 26, 2022 1:39 AM - Jan 26, 2022 1:46 AM

Submission View

Your quiz has been submitted successfully.

Question 1

1 / 1 point

In Java, how to you find the length of array **a**?

- ☐ You need to keep track of that in a separate variable.
- ✓ ☒ `a.length`
- ☐ `a.length - 1`

Question 2

1 / 1 point

What is the index of the first element of array **a**?

- ✓ ☒ 0
- ☐ `a.length`
- ☐ 1

Question 3

1 / 1 point

What is the index of the last element of array **a**?

- ☐ `a.length + 1`
- ☐ `a.length`
- ✓ ☒ `a.length - 1`

Question 4

1 / 1 point

What does the **find** algorithm do?

- ☐ It returns the value of an item at a given index of an array.
- ✓ ☒ It returns the index of the first instance of a given value in an array.
- ☐ It returns the index of the last instance of a given value in an array.

Question 5

1 / 1 point

What does the **count** algorithm do?

- ✓ ☒ It returns a count of the number of occurrences of a given value in an array.
- ☐ It returns a list of indices at which a given value may be found in an array.
- ☐ It returns the length of an array.

Question 6

1 / 1 point

What does the **minElement** algorithm do?

- ✓ ☒ It returns the index of the smallest element of an array.
- ☐ It returns the lowest index of an array.
- ☐ It returns the value of the smallest element of an array.

Question 7

1 / 1 point

What does the **swap** algorithm do?

- ✓ ☒ It exchanges two elements of an array.
- ☐ It exchanges the contents of two arrays.
- ☐ It exchanges the first and last elements of an array.

Question 8

1 / 1 point

What does the **rotateLeft** algorithm do?

- ☐ It moves all the elements of the array to the next higher index, with the last element moved to the beginning.
- ☐ It moves all the elements of the array to the next lower index, with the first element discarded.
- ✓ ☒ It moves all the elements of the array to the next lower index, with the first element

moved to the end.

Question 9

1 / 1 point

Our **ArrayUtils** class is referred to as a utility class.

- ✓ ☒ True
- ☐ False

Question 10

1 / 1 point

In the **ArrayUtils** functions, what is consistently used as the name of an array?

- ☐ value
- ✓ ☒ a
- ☐ i

Question 11

1 / 1 point

In the **ArrayUtils** functions, what is consistently used as the name of a value to search for?

- ☐ i
- ☐ a
- ✓ ☒ value

Question 12

1 / 1 point

In the **ArrayUtils** functions, what is consistently used as the name of the loop variable?

- ✓ ☒ i
- ☐ value
- ☐ a

Question 13

1 / 1 point

Which of these is the standard for loop for traversing an entire array?

- ☒ `for (int i = 0; i < a.length; i++)`
- ☐ `for (int i = 1; i <= a.length; i++)`
- ☐ `for (int i = 0; i <= a.length; i++)`

Question 14

1 / 1 point

Which of these is the notation for a half-open range starting at index `lo` and going up to (but not including) `hi`?

- ☐ `(lo,hi)`
- ☒ `[lo,hi)`
- ☐ `[lo,hi]`

Question 15

1 / 1 point

If `a` is an array, `a[hi]` is an element within the half-open range `[lo,hi)`.

- ☐ True
- ☒ False

Question 16

1 / 1 point

If `a` is the name of an array, why does `a[a.length]` always cause an error?

- ☐ This is a trick question; `a[a.length]` is valid and refers to the last element of the array.
- ☒ Since arrays begin at 0, the valid indices are `[0,a.length)`, and so `a.length` is not a valid index.

Attempt Score: 16 / 16 - 100 %

Overall Grade (highest attempt): 16 / 16 - 100 %

Done

