Quiz Submissions - Arrays and Half-open Ranges Homework Quiz

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Retaken Attempt 2

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Submission View

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Question 1 Correct on previous attempt(s) **1 / 1 point**

Say you have an array of values representing the hourly temperatures for one day. What function could you use to find the hour with the day's high temperature?

- ○ `ArrayUtils.count()`
- ✓ ○ `ArrayUtils.maxElement()`
- ○ `ArrayUtils.find()`

Question 2 Correct on previous attempt(s) **1 / 1 point**

Say you have an array of values reprsenting exam scores for a class. What function could you use to find the number of students who scores exactly 100?

- ○ `ArrayUtils.maxElement()`
- ○ `ArrayUtils.find()`
- ✓ ○ `ArrayUtils.count()`

→ **Question 3** Retaken **1 / 1 point**

Which of these formulas properly finds the midpoint of the half-open range `[lo,hi)`?

- ✓ ○ `int mid = lo + (hi - lo) / 2;`

- `int mid = (lo + hi) / 2;`
- `int mid = hi / 2;`

Question 4 Correct on previous attempt(s) **1 / 1 point**

Which of these formulas properly finds the one-third point of array `a` (that is, the index `m1` such that `[0,m1)` comprises about one-third of the array)?

- `int m1 = a.length * (1/3);`
- `int m1 = m1 / 3;`
- ✓ `int m1 = a.length / 3;`

Question 5 Correct on previous attempt(s) **1 / 1 point**

Which of these formulas properly finds the two-thirds point of array `a` (that is, the index `m2` such that `[0,m2)` comprises about two-thirds of the array)?

- ✓ `int m2 = (a.length * 2) / 3;`
- `int m2 = a.length * (2/3);`
- `int m2 = (a.length / 3) * 2;`

Question 6 Correct on previous attempt(s) **1 / 1 point**

What is the index of the first element of the half-open range `[7,22)`?

- 0
- ✓ 7
- 1

Question 7 Correct on previous attempt(s) **1 / 1 point**

What is the index of the last element of the half-open range `[7,22)`?

- ✓ 21
- 22

- `a.length`

Question 8 Correct on previous attempt(s) **1 / 1 point**

How many array elements are in the half-open range `[3,7)`?

- 3
- ✓ 4
- 5

Question 9 Correct on previous attempt(s) **1 / 1 point**

What half-open range represents an entire array `a`?

- `[0,a.length-1)`
- `[0,a.length+1)`
- ✓ `[0,a.length)`

Question 10 Correct on previous attempt(s) **1 / 1 point**

What is the standard loop for traversing the half-open range `[lo,hi)` of array `a`?

- `for (int i = lo; i < hi-1; i++)`
- ✓ `for (int i = lo; i < hi; i++)`
- `for (int i = lo; i <= hi; i++)`

Question 11 Correct on previous attempt(s) **1 / 1 point**

What is the output of this code snippet?

```
int a[] = { 2, 7, 1, 8, 2, 8, 1, 8, 2, 8, 4 };
int idx1 = ArrayUtils.find(a, 7);
int idx2 = ArrayUtils.find(a, 8);
int idx3 = ArrayUtils.find(a, 5);
System.out.printf("%d %d %d\n", idx1, idx2, idx3);
```

- 2 4 -1
- ✓ 1 3 -1

1 4 0

Question 12 Correct on previous attempt(s) **1 / 1 point**

What is the output of this code snippet?

```
int a[] = { 2, 7, 1, 8, 2, 8, 1, 8, 2, 8, 4 };
int n1 = ArrayUtils.count(a, 7);
int n2 = ArrayUtils.count(a, 8);
int n3 = ArrayUtils.count(a, 5);
System.out.printf("%d %d %d\n",n1, n2, n3);
```

1 3 -1

8 2 8

✓ 1 4 0

→ **Question 13** Retaken **1 / 1 point**

What is the output of this code snippet?

```
int a[] = { 12, 17, 11, 18, 12, 18, 11, 18, 12, 18, 14 };
int idx1 = ArrayUtils.find(a, 1, 5, 18);
int idx2 = ArrayUtils.find(a, 3, 5, 18);
int idx3 = ArrayUtils.find(a, 3, 3, 18);
System.out.printf("%d %d %d\n", idx1, idx2, idx3);
```

18 18 -1

3 3 3

✓ 3 3 -1

→ **Question 14** Retaken **1 / 1 point**

What is the output of this code snippet?

```
int a[] = { 12, 17, 11, 18, 12, 18, 11, 18, 12, 18, 14 };
int n1 = ArrayUtils.count(a, 2, 8, 18);
int n2 = ArrayUtils.count(a, 3, 7, 18);
int n3 = ArrayUtils.count(a, 3, 3, 18);
System.out.printf("%d %d %d\n", n1, n2, n3);
```

✔ 3 2 0

3 3 1

3 3 0

Question 15 Correct on previous attempt(s) **1 / 1 point**

What are the contents of array **a** after this code snippet is executed?

```
int a[] = { 13, 11, 14, 11, 15, 19, 12, 16, 15 };
swap(a, 2, 5);
```

13, 15, 14, 11, 11, 19, 12, 16, 15

✔ 13, 11, 19, 11, 15, 14, 12, 16, 15

13, 11, 14, 11, 15, 19, 12, 16, 15

→ **Question 16** Retaken **1 / 1 point**

What are the contents of array **a** after this code snippet is executed?

```
int a[] = { 13, 11, 14, 11, 15, 19, 12, 16, 15 };
rotateLeft(a);
```

✔ 11, 14, 11, 15, 19, 12, 16, 15, 13

13, 11, 14, 11, 15, 19, 12, 16, 15

15, 13, 11, 14, 11, 15, 19, 12, 16

Attempt Score: 16 / 16 - 100 %

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

Done