

Q06. Arrays

Due Nov 2 at 11:59pm
Allowed Attempts 3

Points 20

Questions 20

Time Limit 90 Minutes

Take the Quiz Again

Attempt History

	Attempt	Time	Score
KEPT	Attempt 2	18 minutes	17 out of 20
LATEST	Attempt 2	18 minutes	17 out of 20
	Attempt 1	23 minutes	12 out of 20

⚠️ Answers will be shown after your last attempt

Score for this attempt: **17** out of 20

Submitted Oct 28 at 12:31pm

This attempt took 18 minutes.

Question 1

1 / 1 pts

All the elements of an array in Java MUST conform to the same data type.

☒ True

☐ False

Question 2

1 / 1 pts

What is the value stored in the variable z by the statements below?

```
int[] q = {3, 2, -2, 4, 7, 0, 1};  
int z = q.length;
```

- ☐ 1
- ☐ 3
- ☐ 6
- ☒ 7
- ☐ None of the above

Question 3**1 / 1 pts**

Which of the following statements declares a new array variable with no syntax errors?

- ☐ `int[] myArr;`
- ☐ `int[] [] myArr;`
- ☐ `int[] myArr = new int[12];`
- ☐ `int[] myArr = { 3, 4, 5, 6 };`
- ☒ All of the above

Question 4**1 / 1 pts**

What is printed by the following code?

```
int[] x = {3, 4, 5, 6, 7};
```

```
int[] y = x;  
for (int i = 0; i < 3; i++)  
  
    y[i + 2] = 3 * y[i];  
  
System.out.println( x[3] );
```

- ☐ 5
- ☐ 6
- ☐ 9
- ☒ 12
- ☐ 15

Question 5**1 / 1 pts**

In the following method call, which argument is an array?

```
myObject.some_method(x, y, 3);
```

- ☐ x is an array
- ☐ y is an array
- ☐ both x and y are arrays
- ☐ neither x nor y is an array
- ☒ can't say without seeing more code

Question 6**1 / 1 pts**

Which of the following statements correctly uses **a reference to the entire array myArray** as the argument of the method call? (The method call comes from within the same class, so no qualifier is needed.)

```
public void myMethod( int[ ] a ) { ... }
```

- ☒ myMethod(myArray);
- ☐ myMethod(myArray[]);
- ☐ myMethod(myArray[0]);
- ☐ All of the above

Question 7

1 / 1 pts

An array of doubles is stored in the variable v as shown below. Which statement below will print some or all of the contents of the array with NO errors (syntax or logical)?

```
int vSize = 5;  
double[ ] v = new double[vSize];  
for (int i = 0; i < vSize; i++)  
  
    v[i] = 1.1;
```

- ☐ System.out.println(v);
- ☒ System.out.println(v[0]);
- ☐ System.out.println(v[vSize]);
- ☐ All of the above
- ☐ None of the above

Question 8**1 / 1 pts**

Which of the following method signatures correctly specifies an array as a return type?

- ☐ private array testMethod (int x)
- ☒ private int[] testMethod (int x)
- ☐ private double[5] testMethod (int x)
- ☐ private double testMethod[] (int x)
- ☐ can't tell from this code

Incorrect**Question 9****0 / 1 pts**

Which of the following is the BEST description of a 2-D array in Java?

- ☐ a 2-D array is a table
- ☐ a 2-D array is an array of arrays
- ☒ a 2-D array is a matrix
- ☐ a 2-D array is a nested loop
- ☐ a 2-D array is an ArrayList

Question 10**1 / 1 pts**

A loop is being used to find the lowest value in a *double* array named *numbers*. Which of the following statements performs a useful initialization of the accumulator?

- ☐ `double lowestValue = 0;`
- ☐ `double lowestValue = numbers;`
- ☒ `double lowestValue = numbers[0];`
- ☐ `double lowestValue; // no initialization needed`
- ☐ Any of the above.

Question 11

1 / 1 pts

The following bit of code is attempting to find the sum of all the elements in the array 'codes'. One line contains a logic error. Which line is it?

```
long[] codes = ...; // Assume the array has been filled
with values
...
long sum = 0; // line 1
for ( int i = 1; i < codes.length; i++ ) { // line 2
    sum = sum + codes[i]; // line 3
}
```

- ☐ line 1
- ☒ line 2
- ☐ line 3

Question 12**1 / 1 pts**

Which of the following is true about a sifting operation?

- ☐ The operation may produce **more than one result**.
- ☐ The operation may produce **no results**.
- ☐ The search must continue even after a match is found; **the entire collection must be examined**.
- ☒ All of the above.
- ☐ None of the above.

Question 13**1 / 1 pts**

The following bit of code is attempting to find the average number of characters in all of the Strings in a String array. One line has a syntax error. Which line is it?

```
String[] names = ... // Assume the array has been filled
with values
...
double averageLength = 0; // line 1
int i;
for (i = 0; i < names.length(); i++ ) { // line 2
    averageLength += names[i].length(); // line 3
}
averageLength = averageLength / i; // line 4
```

- ☐ line 1

☒ line 2☐ line 3☐ line 4

Incorrect

Question 14**0 / 1 pts**

The following bit of code is attempting to find the x-coordinate of the Point that is farthest to the right in the x-y plane in the array 'points'. One line contains an error. Which line is it?

```
Point[] points = ... // Assume the array has been filled
with Point object references
...
double xMax = points[0].getX(); // line 1
for ( int i = 1; i < points.length; i++ ) { // line 2

    if ( points[i].getX() > xMax ) { // line 3
        xMax = points[i]; // line 4
    }
}
```

☒ line 2☐ line 3☐ line 4**Question 15****1 / 1 pts**

The last 3 lines in the following program are supposed to swap the two elements in the array 'blooms' identified by the index values 'mary' and 'john'.

Choose from among the answers listed the correct statement for the middle of these 3 lines:

```
Flower[] blooms = ... // Assume this array is filled with object references
int mary, john; // Assume these variables have values assigned to them
...
Flower temp = blooms[mary];
// What statement goes here??
blooms[john] = temp;
```

- ☐ john = mary;
- ☐ temp = blooms[john];
- ☒ blooms[mary] = blooms[john];
- ☐ blooms[john] = blooms[mary];
- ☐ None of the above -- no statement is needed.

Question 16

1 / 1 pts

The following statement constructs a new String array. What initial value is stored in each of the array **elements**?

```
String[] words = new String[8];
```

- ☐ the empty String ("")
- ☐ the numbers 1 through 8
- ☐ the numbers 0 through 7
- ☒ the value *null*

☐ the value *void*

Question 17

1 / 1 pts

What is printed out by the following short program?

```
double[] x1 = {3.3, 4.4, 5.5, 6.6};  
double[] x2 = x1;  
x2[1] = 24.0;  
double x = x1[1] * 2;  
System.out.println(x1[1]);
```

☐ 3.3

☐ 4.4

☐ 6.6

☐ 8.8

☒ 24.0

Question 18

1 / 1 pts

Consider this code:

```
String[] names = {"Mary", "Jose", "Minh"};  
System.out.println(names[1]);
```

What is the **data type** of `names[1]`?

☒ String

☐ String[]☐ array☐ char

Incorrect

Question 19**0 / 1 pts**

[This is different than the previous question.] Consider this code:

```
String[] names = {"Mary", "Jose", "Minh"};  
System.out.println(names[1]);
```

What is the **data type** of **names**?

☒ String☐ String[]☐ array☐ char**Question 20****1 / 1 pts**

What will be printed by the following program?

```
int[] nums1 = {7, 6, 5, 4};  
int[] nums2 = {7, 6, 5, 4};  
boolean ans1 = (nums1 == nums2);  
boolean ans2 = nums1.equals(nums2);  
boolean ans3 = Arrays.equals(nums1, nums2);  
System.out.println( ans1 + "-" + ans2 + "-" + ans3 );
```

- ☐ true - true - true
- ☐ false - true - true
- ☒ false - false - true
- ☐ false - false - false

Quiz Score: **17** out of 20