

## Module 5 Quiz

Quiz, 13 questions

**13/13 points (100.00%)**

### Congratulations! You passed!

[Next Item](#)1 / 1  
point

1.

Of the following, which is the correct syntax to declare an array of 24 **boolean** elements named **arr**?

- ☐ `boolean arr[] = new boolean;`
- ☐ `boolean arr = new boolean[24];`
- ☐ `boolean arr[24];`
- ☐ `boolean[24] arr = new boolean[24];`
- ☒ `boolean[] arr = new boolean[24];`

  
**Correct**1 / 1  
point

2.

Given the declaration of the 24 element **boolean** array **arr** above, what is the index of the last element of the array?

- ☐ 22
- ☐ 25
- ☐ 24
- ☒ 23

  
**Correct**

Java arrays use zero-based indexing, where the index of the first array element is zero.

## Module 5 Quiz

Quiz, 13 questions

13/13 points (100.00%)

3.

If you wanted to initialize the **boolean** array **arr** so that all elements contain the value **true**, you could use the following: **arr.fill(true);**

☐ TRUE☒ FALSE**Correct**

Array objects do not have many methods, and in particular they do not have a fill() method. Please review the methods available in the Arrays class.

1 / 1  
point

4.

Arrays of class type require a two-phase initialization. One phase to create the array and another phase to create the objects in the array.

☐ FALSE☒ TRUE**Correct**

Arrays of class type only contain references to the actual objects.

1 / 1  
point

5.

Given an integer array named **arr**, the number of elements in the array can be determined by the following method call: **arr.length()**

☐ TRUE☒ FALSE**Correct**

Please review what methods are available in array objects and what data fields are available in them.

## Module 5 Quiz

Quiz, 13 questions

13/13 points (100.00%)

6.

Which of the following statements is true (pick only one):

- ☐ An array cannot be sized dynamically when the program is running.
- ☐ An array can be sized dynamically, and it can be resized without allocating a new array.
- ☒ An array can be sized dynamically, but it cannot be resized without allocating a new array.

**Correct**

The size of an array is set at runtime but then it is fixed.

1 / 1  
point

7.

What is the value of the variable s after the following section of code executes?

```
1  int s = 0;
2  int [] a = {12, 23, 34, 45, 56};
3  for (int i=1; i<a.length; i++) {
4      s += a[i];
5  }
6
```

- ☐ 114
- ☒ 158

**Correct**

Carefully examine the for-loop and where it starts and stops.

- ☐ 0
- ☐ 170

1 / 1  
point

8.

What type of collection would we use if we wanted no duplicates?

- ☐ List
- ☐

# Module 5 Quiz

Quiz, 13 questions

13/13 points (100.00%)

**Correct**

Please review the various containers available in the Java Collections Framework in lecture 4 part 1.

☐ Queue1 / 1  
point

9.

Examine the following code:

```
1  ArrayList<String> list = new ArrayList<String>() ;  
2  
3  list.add("alpha");  
4  list.add("bravo");  
5  list.add("charlie");  
6  list.add("delta");  
7  list.add("echo");  
8
```

Which of the following will replace the element "**charlie**" with "**foxtrot**"?

- ☐ list.set("foxtrot","charlie");
- ☒ list.set(list.indexOf("charlie"),"foxtrot");

**Correct**

In this situation, we want to replace an element rather than add a new element. Review the methods of the ArrayList class in lecture 5.

- ☐ list[2] = "foxtrot";
- ☐ list.set("charlie","foxtrot");
- ☐ list.add("foxtrot", list.indexOf("charlie"));

1 / 1  
point

10.

Examine the following code:

## Module 5 Quiz

13/13 points (100.00%)

Quiz, 13 questions

```
1 ArrayList<String> list = new ArrayList<String>() ;  
2  
3 list.add("alpha");  
4 list.add("bravo");  
5 list.add("charlie");  
6 list.add("delta");  
7 list.add("echo");  
8
```

Which of the following will change the list so that it looks like:

```
1 alpha  
2 bravo  
3 charlie  
4 delta
```

- ☐ list.clear("echo");
- ☒ list.remove(list.size()-1);

### Correct

In this case we want to delete an element from the ArrayList. There are several ways to do it. Review the methods available in the class.

- ☐ list.empty("echo");
- ☐ list.remove(list.size());
- ☐ list.remove(5);



1 / 1  
point

11.

Examine the following code:

```
1 ArrayList<String> list = new ArrayList<String>() ;  
2  
3 list.add("alpha");  
4 list.add("bravo");  
5 list.add("charlie");  
6 list.add("delta");  
7 list.add("echo");  
8  
9 for ( _____ name : _____ ) {  
10     out.println( _____ );  
11 }  
12
```

Fill in the blanks so that all the elements in the ArrayList are printed.



```
1 String list name
```

## Module 5 Quiz

Please review the syntax of the foreach loop in lecture 3

13/13 points (100.00%)

Quiz, 13 questions



```
1 iterator() hasNext() next()
```



```
1 String iterator() next()
```



```
1 int String name
```



```
1 String list next()
```



1 / 1  
point

12.

A HashMap can map keys of any type to values of any type.



FALSE

**Correct**

The containers in the Java Collections Framework only store data that are object types. Primitive type data requires the usage of a wrapper class instead.



TRUE



1 / 1  
point

13.

Which of the following is **not** a feature/advantage of a HashMap?



HashMaps keep their keys in sorted order.

**Correct**



HashMaps have fast insert.





HashMaps can use any object type as a key.

# Module 5 Quiz

13/13 points (100.00%)



Quiz, 13 questions  
HashMaps have fast lookup.

---

---

