# Module 6 quiz on arrays and parameters

**LATEST SUBMISSION GRADE**

## 100%

1.  Which code segment illustrates a correct way to declare an array of 10 objects. Assume          **1 / 1 point**
    the class Beverage has been created.

    ○
    ```
    1   Beverage[10] guestList;
    ```

    ○
    ```
    1   new guestlist[10];
    ```

    ○
    ```
    1   Beverage guestlist = array[10];
    ```

    ◉
    ```
    1   Beverage[] guestList = new Beverage[10];
    ```

    ✓   **Correct**
        Correct! This is quite similar to declaring an array of primitive data types, but
        remember to use the keyword new.

2.  Consider the following **incorrect** code segment. Assume the Pet class has been defined          **1 / 1 point**
    and contains the method setName(String).

    ```
    1   Pet customer[] = new Pet[5];
    2   customer[3].setName("Spot");
    ```

    We learned that this code is incorrect because...*select the best explanation*

○ objects stored in an array can not be accessed individually. They can only be accessed as a group.

○ all five of the names must be set at one time.

◉ although the array of Pet references has been created, none of them point to Pet objects yet. Each object must be instantiated individually.

○ The proper syntax for a set method called on an object is

```
1   setName(customer[3], "Spot");
```

✓ **Correct**

Correct! A for loop is often used to instantiate each object of an array.

3.  Select all of the code segments that properly create an array of 3 objects and instantiate them. Assume the class Lesson has been created.                    **1 / 1 point**

☑

```
1   Lesson [] week1 = new Lesson[3];
2   for (int i = 0; i<week1.length; i++){
3       week1[i] = new Lesson();
4   }
```

✓ **Correct**

Correct. The first line creates the array of references to the objects. The for loop then instantiates each Lesson object using the default constructor.

☑

```
1   Lesson [] week1 = {new Lesson(), new Lesson(), new Lesson()};
```

✓ **Correct**

Correct. Here we create the array of references and instantiate each new object all in one line of code.

☐

```
1   Lesson [] week1 = new Lesson[0], new Lesson[1], new Lesson [2];
```

☐

```
1   Lesson[3] = week1[0], week1[1], week1[2];
```

4.                                                                                        **1 / 1 point**

When an object is passed as a parameter, its state is changed within the method that it was passed to because...

○ the object was updated when the return statement was executed.

○ a copy of the object was passed.

⦿ the reference to the object was passed.

○ the value of the object (its state) was passed.

✓ **Correct**
  Correct. When passing an object as a parameter, it is passed by reference, meaning the information about the memory location where the actual object data is stored is passed to the method. Thus a change to the object in the method is a change to the actual object state.

5.                                                                                        **1 / 1 point**

Consider the code

```
1   Pet sparky = new Pet();
2   Pet fido = sparky;
```

Line 2 of this code...

○ creates a new object named sparky with the same state data found in fido.

○  creates a new object named fido with the same state data found in sparky.

○  compares the object fido do the object sparky and returns true or false.

◉  sets the object fido to reference or "point to" the object sparky.

✓  **Correct**
Correct. We are in essence taking the memory location reference of sparky
and copying it into the variable fido.

6.  Select all of the scenarios where using a static class constant would be appropriate.          **1 / 1 point**

☑  To declare a constant that is used in different methods of the class and whose
value never changes.

✓  **Correct**
Correct. A good example of this was the RTNumber which was the routing
number for our bank.

☑  To declare a constant that is somehow associated with the class and may be
accessed by client programs.

✓  **Correct**
Correct. A good example of this is the constant PI which is found in the Math
class. As long as it is declared public it can be accessed by client programs.

☐  To declare a variable that is used in different methods of the class. This helps to
avoid having to pass and return it as a parameter.

☐  To share the state of that variable across many different objects of the class, like a
count variable to keep track of how many objects have been created.