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## 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 the class Beverage has been created.

1 / 1 point

☐

```
1 Beverage[] guestList;
```

☐

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

☐

```
1 new guestList[10];
```

☐

```
1 Beverage guestList = array[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 and contains the method `setName(String)`.

1 / 1 point

```
1 Pet customer[] = new Pet[5];  
2 customer[0].setName("Spot");
```

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

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

```
1 setName(customer[0], "Spot");
```

- ☐ 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.

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

✓ **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[] weeks = new Lesson[3];  
2 for (int i = 0; i<weeks.length; i++){  
3     weeks[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[] weeks = {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[] weeks = new Lesson[3], new Lesson[1], new Lesson[2];
```

☐

```
1 Lesson[] = weeks[0], weeks[1], weeks[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 value of the object (its state) was passed.
- ☐ the object was updated when the return statement was executed.
- ☒ the reference to the object was passed.
- ☐ a copy of the object 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...

- ☒ sets the object fido to reference or "point to" the object sparky.
- ☐ compares the object fido to the object sparky and returns true or false.
- ☐ 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.

✓ Correct

Correct. We are in essence taking the memory location reference of sparky and copying it into 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 RTNNumber 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.