Classes and Objects

Quiz

Which of the following statements about static and non-static are correct?

A. Static data is also called instance data, and non-static data is called class data.
B. Only one copy of instance (non-static) exists.
C. There is a separate copy of instance data for every object that is instantiated.
D. Accessing class data using the class name instead of the object name is not a good practice.
E. Accessing instance data does not require use of the class name, if done from within the same class.

Question 1

The code below accesses class/instance variables, which line will not compile?

```java
public class Class {
    1. String s0 = "Instance Data";
    2. static String s1 = "Class Data";
    3. public static void main(String[] args) {
        4. Class instance = new Class();
        5. System.out.println(Class.s0);
        6. System.out.println(instance.s0);
        7. System.out.println(Class.s1);
        8. System.out.println(instance.s1);
    }
}
```

A. 5
B. 6
C. 7
D. 8
E. All will compile

Question 2
The code below accesses class/instance variables, which line will not compile?

```java
public class Class {
    String s0 = "Instance Data";
    static String s1 = "Class Data";
    public static void main(String[] args) {
        Class instance = new Class();
        System.out.println(Class.s0);
        System.out.println(instance.s0);
        System.out.println(Class.s1);
        System.out.println(instance.s1);
    }
}
```

A. 5  
B. 6  
C. 7  
D. 8  
E. All will compile

Putting it all together with class and instance data.

```java
public class Peer {
    static int i = 11;
    int j = 22;
    public static void main(String[] args) {
        Peer p1 = new Peer();
        Peer p2 = new Peer();
        p1.i = 33; p1.j = 44; p2.i = 55; p2.j = 66;
        System.out.println(p1.i + " " + p1.j + " + " + p2.i + " + " + p2.j);
    }
}
```

A. 11 44 33 66  
B. 33 44 55 66  
C. 55 44 55 66  
D. 55 66 55 66  
E. Will not compile

On to the lecture