Methods Test 1

Questions 1-4 refer to the following code segment.

```java
public class Demo
{
   public void method1(int a, int b)
   {
      int ans = 0;
      ans = a + b;
      System.out.println(ans);
   }

   public String method2(String str)
   {
      String s1 = str.substring(0,1);
      String s2 = str.substring(str.length() - 1);

      return s1 + s2;
   }

   public static void main(String[] args)
   {
      Demo app = new Demo();
      app.method1(10, 20);                     // Line 1
      String str = app.method2("friend");      // Line 2
   }
}
```

1. How many parameters does `method1` declare?

   A) 0
   B) 1
   C) 2
   D) 3

2. The return value of `method2` is of type

   A) `int`
   B) `double`
   C) `boolean`
   D) `String`

3. What is displayed as a result of executing **Line 1**?

   A) 30
   B) 20
   C) 10
   D) 0

4. What value is stored in the String variable str as a result of executing **Line 2**?

   A) Friend
   B) Fr
   C) Fd
   D) Frie

5. Assume that a class has defined the following methods.

   ```
   public int one(int num)
   {
       return num * num;
   }

   public int two(int x)
   {
       return x + one(x);
   }
   ```

   What value is returned by the following method call: **two(5)?**

   A) 5
   B) 15
   C) 25
   D) 30

6. Refer to the following method.

   ```
   public void doSomething(int num)
   {
       int ans;
       ans += num;
       System.out.println(ans);
   }
   ```

   What is output by the following method call: **doSomething(2)?**

   A) 0
   B) 2
   C) 4
   D) nothing is output due to a syntax error

7. Look at the following method definition.

```
public void printName(String name)
{
    /* expression */
}
```

Which of the following correctly replaces / * expression */ so that the string value stored in the parameter **name** is displayed using the following format: "My name is _____".

```
A) System.out.println("My name is " + name);
B) System.out.println("My name is Bob");
C) return "My name is " + name;
D) return "My name is Bob";
```

8. The following method should return the square of an integer value that is passed as a parameter (argument) to the method.

```
/* method header */
{
    return num * num;
}
```

Which of the following correctly replaces /* method header */ so that the method works as intended.

```
A) public void square()
B) public void square(int num)
C) public int square()
D) public int square(int num)
```

Questions 9-10 refer to the following class definition.

```
public class Demo
{
   private int a = 5;

   public void method1()
   {
      int b = 10;
   }

   public void method2()
   {
      int c = a * 2;
      System.out.println(c);      // line 1
      int d = b * 2;
      System.out.println(d);      // line 2
   }
}
```

9. What value is printed on **line 1** as the result of a call to **method2**?

   A) 2
   B) 5
   C) 10
   D) Nothing is printed due to a syntax error

10. What value is printed on **line 2** as the result of a call to **method2**?

   A) 5
   B) 10
   C) 20
   D) Nothing is printed due to a syntax error