

Methods Test 1

Questions 1-4 refer to the following code segment.

```
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
    }

    public void method3()
    {
        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 **method3**?

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