

Java Methods

Creating Java Methods

1. Assume that a class named Arithmetic has been defined with three variables of type int named num1, num2, and answer. Write the method header and body for a method named **sum** that will add num1 and num2 together and store the result of the calculation in the variable answer.
2. A main method has been defined below for the Arithmetic class described above. Complete the main method by writing a line of code that will call (execute) the sum method.

```
public class Arithmetic
{
    public static void main(String[] args)
    {
        Arithmetic app = new Arithmetic();
        _____
    }
}
```

3. What is problem decomposition?
4. In Java, problem decomposition is achieved through the constructing of _____ and _____.
5. A stub program is used to form the _____ of a program.
6. What is a variable's scope?

Variable Scope

7. Look at the following code segment.

```
public class MyClass
{
    private int num1;

    public void myMethod()
    {
        int num2 = 0;
    }
}
```

Does the variable num1 have local scope or global scope?

Does the variable num2 have local scope or global scope?

8. Why will the following method cause a compiling error?

```
public void doSomething()
{
    int num;
    num += 25;
    System.out.println(num);
}
```

9. Why do instance variables not have to be initialized?

10. Declare a String variable named **str1** and initialize it with a string's default value.