Exercises: Primitive Variables

Code Reading

1. Consider the following variable identifiers. Mark whether the identifier is valid or invalid. If it is invalid, state why.

- xCoordinate
- 2ndName
- FINAL_AMOUNT
- x
- my string
- class

2. Consider the following lines of code. At the end of the code, which variables have been declared, and which have been initialized?

```java
public class Exercise {

    public static void main(String[] args) {

        String firstName, lastName;
        String hometown = "La Crosse", state;

        firstName = "James";

    }

}
```
3. Consider the following lines of code. At each line, state the current values of all the initialized variables.

```java
public class Exercise {
    public static void main(String[] args) {
        String firstName, lastName;
        String hometown = "La Crosse", state;

        firstName = "James";
        lastName = "Smith";
        state = firstName;
        lastName = state + lastName;
        hometown = lastName;
    }
}
```
Code Writing

4. For the following parts, (a) declare a String variable called state, and (b) initialize the variable to “Wisconsin”. On (c), declare and initialize the variable all on one line.

   (a) 

   (b) 

   (c) 

5. For the following parts, (a) declare a Scanner variable called scan, and (b) instantiate the variable to read from System.in. On (c), declare and instantiate the variable all on one line.

   (a) 

   (b) 

   (c) 

6. Below are two variables, a and b. Write code to assign the value of variable a to variable b. You should only use the variables provided in your solution, not any string literals (e.g., “one” or “two”).

   ```
   String a = "one";
   String b = "two";
   ```
7. Below, write code to declare and instantiate a `Scanner` variable called `readIn` that reads from `System.in`. Print a prompt for the user to input their major, and then use the `nextLine()` method to read in their answer and store it in a `String` variable called `major`. Consider how you might ensure there is a space between the prompt and the user’s response. Test your solution by typing it into Eclipse.