

CS-141 Basic Method Problems:

Learning the Terminology

1. **Terminology:** It is very important to learn the terminology that is used in reference to methods, i.e. know what is meant when someone says:
 - a. call a method
 - b. return a value
 - c. pass a value (i.e. argument) as a parameter (know the difference between argument and parameter).
 - d. Write (or implement) a method e.g. called **doSomething** that has two **String** parameters and *returns* a **double**.

The exercises below will help you learn how the terminology is used.

2. *Rolling a Pair of Dice* - Write a method called **roll** that:
 - a. Rolls a 6 sided die (i.e. randomly generate an integer in the range 1 to 6).
 - b. Prints the result.

(Note, this method has no parameters and no return value.)

Call the method twice from the main method to simulate rolling a pair of dice.

3. Modify the above **roll** method so that it:
 - a. Rolls a 6 sided die, as before.
 - b. No longer prints the result but instead returns the integer value of the roll.

(Note, this method has no parameters and an integer return value)

In the main method:

- a. Call the method twice, saving the return value in variables.
- b. Print the value of each roll.
- c. Print the value of the sum of the two rolls.

4. Modify the above roll method so that one can choose the number of sides of the die. That is, the roll method should now have one integer parameter called **nSides**. The method should
 - a. Roll a die with **nSides** sides (i.e. randomly generate an integer in the range 1 to **nSides**).
 - b. Return the integer value of the roll.

(Note, this method has one integer parameter and an integer return value)

In the main method:

- a. Call the method twice with difference values for the number of sides.
- b. Print the value and number of sides for each roll.
- c. Print the value of the sum of the two rolls and the maximum possible value of the two rolls.

5. Write a method called **printWin** that has 2 parameters: a person's name (String) and a score (int). It should return a message (String) that the person has won (e.g. "John has won.") if the score is above 10. Otherwise, it returns the message that they lost (e.g. "John has lost.") . Call the method from main to test it. (Note, this method has two parameters (a String and an int), and it has a String return value.)

6. Scope. See separate sheet.