**FOP 2 – Lab4 Worksheet**

1. Write a program that defines the following methods:

* a method that takes in the total gross yearly earnings; the method should compute and return the net yearly earnings in the following ways: if the user no more than 12000, no tax is applied, if the user earns above 12000 and no more than 30000, a tax of 15% applies to the amount that exceeds 12000.
* A method that takes in 2 strings and returns the one that has more characters; if they have the same number of characters, the method should return “same length”.
* A method that takes in an int representing the day of the week and prints the actual name day of the week. NOTE: you must use a switch to implement the method.
* A method that calculates and returns the highest common divisor of 3 positive integers; you can assume that the 3 integers are always entered in increasing order.
* A method that takes in a positive whole number and prints all the prime numbers between 1 and that number inclusively.

1. Write a program that defines 2 overloaded methods to generate and print random numbers. The first version takes in one parameter that represents the number of random values to be generated; these values should be between 0 and 10 both inclusively. The second version takes in 2 parameters: the first parameter represents the number of values to be generated, while the second parameter represents what is the maximum value that can be generated. Invoke these methods twice each.
2. Write a program that defines 2 overloaded methods. The first method takes in an int and a char, and prints a triangle of the given length, filled with the given character. The second takes and additional Boolean parameter that specifies whether the triangle should be printed upside down. Test these methods at least twice each.