Activity 4

1. Consider the following methods:

```java
public static int mystery1(int n1, int n2) {
    if (n1 > n2)
        return n1*n2;
    else
        return n1+n2;
}
```

```java
public static int mystery2(int n1, int n2, int n3) {
    if(n1 > n2)
        return mystery1(n2, n3);
    else
        return mystery1(n1, n2);
}
```

What does mystery1(5, 6) return?
11

What does mystery2(4, 2) return?
Compile-time error. Mystery2 requires 3 integer arguments (n1, n2, and n3).

2. Consider the following method

```java
public static void mystery3(int n) {
    int current = 1;
    int prev = 1;
    System.out.print(pref + " " + current);
    for(i = 3; i<=n; i++) {
        int n = current+prev;
        prev = current;
        current = n;
        System.out.print(current + " ");
    }
}
```

What is the output of mystery3(2)?
1 1

What is the output of mystery3(5)?
1 1 2
3. Write a method that gets two integers as parameter and returns the larger of the two integers (if the integers are the same, then method can return any one of them).

```java
public static int largerInteger(int n1, int n2)
{
    if (n1 > n2) return n1;
    return n2;
}
```

4. Write a method that gets a String and a character as parameter and returns the number of times that character appears in the string.

```java
public static int numberOfAppearance(String s, char c)
{
    int counter=0;
    for (int i=0; i<s.length(); i++)
    {
        if (s.charAt(i) == c)
        {
            counter++;
        }
    }
    return counter;
}
```

5. Suppose you are given a method isPrime(int n) that returns true if n is a prime. Use this method to write another method that get a positive integer m as parameter and outputs first m prime integers.

```java
public static void printPrimes(int m)
{
    int counter=0;
    int currentNumber = 2;
    while (counter < m)
    {
        if (isPrime(currentNumber))
        {
            System.out.println(currentNumber);
            counter++;
        }
        currentNumber++;
    }
}
```