Programming Assignment # 5

1. You have name your file conversion.java.

The following formulas can be used to convert English units of measurement to metric units:

Inches \* 2.54 = centimeters

Feet \* 30 = centimeters

Yards \* 0.91 = meters

Miles \* 1.6 = kilometers

Create a Metric Conversion application that displays a menu of conversion choices and then prompts the user to choose a conversion. Conversion choices should include inches to centimeters, feet to centimeters, yards to meters, miles to kilometers, and vice versa. The application should include separate methods for doing each of the conversions. You should use functions to implement all the conversions. Application output should look similar to:

**Enter a number : 10**

**Convert:  
1. Inches to Centimeters 5. Centimeters to Inches  
2. Feet to Centimeters 6. Centimeters to Feet  
3. Yards to Meters 7. Meters to Yards  
4. Miles to Kilometers 8. Kilometers to Miles**

**Enter you choice: 1**

**10 inches equals 25.4 centimeters**

1. You have name your file maxMin.java.

Modify the max, min, sum and average program so that each is done with a function. Note that because you need to calculate the sum to get the average, the **sum** method should return the sum so that the **average** method does not have to implement it again.

For this program, you do not need to ask the user for input, just store **four** grades in variables **grade1, grade2, grade3** and **grade4**.

The output should look similar to:

**The maximum of the four numbers is \_\_\_\_\_.**

**The minimum of the four numbers is \_\_\_\_\_.**

**The sum of the four numbers is \_\_\_\_\_.**

**The average of the four numbers is \_\_\_\_\_.**

1. You have name your file primeMethod.java.

Modify the PrimeNumber application you created to include a method named **isPrime().** The **isPrime()** method should require one parameter and return a Boolean value (true or false).