

## Lab 05

### Part I

1. Create a new project in Eclipse called "Lab05".
2. Within the new project, create a class called "TemperatureConverter". Include a main method in this class.
3. Write a program that works like the following examples. (If you don't know the formula for converting from degrees Fahrenheit to degrees Celsius, just google it.)

#### Example1:

Enter a temperature in Fahrenheit: 212  
In Celsius, that is 100.0 degrees.

#### Example2:

Enter a temperature in Fahrenheit: 451  
In Celsius, that is 232.77777777777777 degrees.

#### Example 3:

Enter a temperature in Fahrenheit: 100  
In Celsius, that is 37.77777777777778 degrees.

### Part II

1. Now create a class called TriangleAreaCalculator, which includes a main method.
2. Google "Heron's formula". It allows you to calculate the area of a triangle if you know the lengths of all three sides of the triangle.
3. Write a main method that works like the following examples. You will need to calculate the square root of a number at some point. How do you do that? Below is an expression that calculates the square root of the number x:

Math.sqrt(x)

#### Example1:

Enter side 1: 5.4  
Enter side 2: 4.8  
Enter side 3: 7.1  
The area of the triangle is 12.952271760197116

#### Example2:

Enter side 1: 16.37  
Enter side 2: 15.444  
Enter side 3: 19.2  
The area of the triangle is 121.62046383296894