

## Practices - Section 4

### Problem 1: Writing methods

#### Overview

In this practice, you will write methods that return values for the following scenarios:

1. Converts given temperature in Fahrenheit to Celsius.

#### Formula:

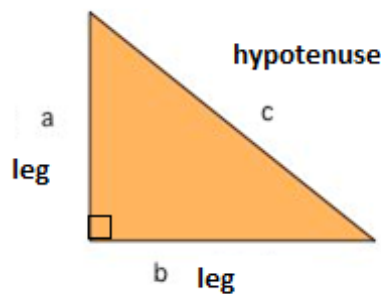
$$C = 5 / 9 * ( F - 32 )$$



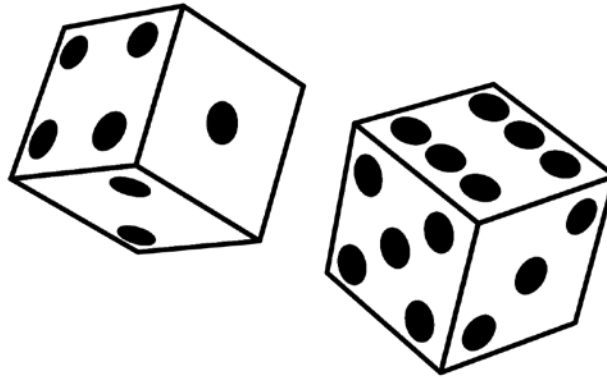
2. Computes the hypotenuse length of a triangle given its side lengths.

#### Formula:

$$c = \sqrt{a^2 + b^2}$$



3. Simulate the rolling of two 6-sided dice and display their sum.



## Task

You must implement the following:

1. Write a java file, `ComputeMethods.java` and define the following three methods:

```
public double fToC(double degreesF)
public double hypotenuse(int a, int b)
public int roll()
```

2. Write a second java file, `TestClass.java` and perform the following:

Add a `main` method, in the `main` method:

Create an instance of `ComputeMethods` and invoke the methods defined in `ComputeMethods.java` on this instance and display their results.

## Expected Output:

```
Temp in celsius is 38.000000000000001
Hypotenuse is 10.816653826391969
The sum of the dice values is 9
```

The `ProblemSet4_1` project is available to help you get started

## Problem 2: Process a name

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### Overview

In this practice, you will develop a java program that processes a name entered by the user. The program does the following:

It reads the user's first and last name (read an entire line as a single string), then prints the last name followed by a comma and the first initial. (Assume that the user types a valid name.)



### Task

You must implement the following:

1. Have the user enter a name
2. Extract the first and last name from the name entered by the user
3. Use methods of `String` class to manipulate name as specified:
4. Display the name to the console

### Expected Output::

```
Type your name: Jenny Weaver
```

```
5
```

```
Your name is: Weaver, J.
```

The `ProblemSet4_2` project is available to help you get started.