LAB #2 –Introduction to Java

Student: _____

Due Date: Week 2.
Purpose: The purpose of this Lab assignment is to:

- Practice the fundamentals of java Programming
- Practice the use of instance methods in Java classes

References: Read the Lecture Notes #1.
This material provides the necessary information you need to complete the exercises.

Be sure to read the following general instructions carefully:

- This lab should be completed individually by all the students.
- You will have to demonstrate your solution in a scheduled lab session and submitting the code through **through dropbox link on eCentennial**.

You must name your Eclipse project according to the following rule:

YourFullName_COMP228Labnumber
Example: **JohSmith_COMP228Lab1**

Each exercise should be placed in a separate project named *exercise1*, *exercise2*, etc.

Submit your assignment in a **zip file** that is named according to the following rule:
YourLastName_COMP228Labnumber.zip
Example: **JohSmith_COMP228Lab2.zip**

Apply the naming conventions for variables, methods, classes, and packages:
- *variable names* start with a *lowercase* character
- *classes* start with an *uppercase* character
- **packages** use only *lowercase* characters
- *methods* start with a *lowercase* character

Exercise 1: (3 marks)

Body Mass Index (BMI), a measure of health on weight, is calculated by taking your weight in kilograms and dividing by the square of your height in meters.
Develop an application that prompts the user to enter a weight in pounds and height in feet and display the BMI value.

- 1 pound is 0.453 kilograms
- 1 foot is 0.304 meters

Exercise 2: (3 marks)

Develop a program that prompts the user to enter an integer and checks whether the number is divisible by both 5 and 6, or neither of them, or just one of them. Here are some sample runs:

```
10 is divisible by 5 or 6, but not both.
30 is divisible by both 5 and 6.
23 is not divisible by either 5 or 6.
```

Exercise 3: (3 marks)

The interpretation of BMI for adults is as follows:

BMI	Interpretation
Below 18.5	Underweight
18.5 - 24.9	Normal
25.0 - 29.9	Overweight
30 and above	Obese

Expand question 1 to display the interpretation of the BMI value as well.

Note: To finish this question use a method named printBmiDescription.
The method accepts the BMI value as a parameter and returns the description as a string back to the main method where it will be printed .

PLEASE READ THE EVALUATION SCHEME ON THE NEXT PAGE.

Evaluation:

Functionality	
Correct implementation of classes (instance variable declarations, constructors, getter and setter methods, etc.)	40%
Correct implementation of driver classes (declaring and creating objects, calling their methods, interacting with user, displaying results)	40%
Comments, correct naming of variables, methods, classes, etc.	5%
Friendly input/output	15%
Total	100%