

## **HOMEWORK 1**

### **Using Input, Variables and Print Statements**

**Please submit .PY code for problems as a single .py file and have it uploaded to the course website.**

- 1) Write a python program to assign two integer and one float variable to 20, 15, and 22.6 respectively. The program should then print these values to the console screen.
- 2) Write a python program to prompt the user to input her/his name and age. Print the values back to the console output screen in the format as shown below.

**Input:**

*Enter your name: Binil*

*Enter your age: 43.0*

**Output:**

*Binil, you are 43 years old*

(Note that if the user enters a floating point value, only an integer should be displayed as the output. Truncate any decimal values)

- 3) Write a python program which uses the formula  $C = (5/9)*(F-32)$  to print the Fahrenheit temperatures as Celsius equivalents. Ask the user to input temperature in F and the code should output the value in the Celsius scale. *Search for "Eval" method in Python. Perhaps this might be more useful then type casting the incoming input variable.*
- 4) Find the weight of a car in Newton whose mass is input by the user. A solved exercise is as follows:  
 User inputs 1400 kg;  $W = m * g = 1400 * 9.81 = 13734N$ ;  
 Write a python program that asks the user for the input for mass in kg. Provide an output formatted as shown below:

Given Input (kg): 1400

Weight (N): 13734

- 5) Write a python program to compute the perimeter and area of a rectangle from user provided inputs. Example as follows

**Input**

Enter height of Rectangle in inches: 5.0

Enter width of Rectangle in inches: 8.0

**Output:**

The area of the rectangle is: 40.0 sq. in

The perimeter of the rectangle is: 26.0 sq. in