COMP 2067: Programming for Beginners

Winter 2022, Assignment #1

Due Date: *Monday, Feb 14*

Covers Lessons 1-3

For each question, write a Python program **with comments** to perform the required tasks. Each program should be submitted in a **separate** file.

1. A box can hold 15 books. **(14+2=16 points)**
   a. Write a program that asks the user to input how many books s/he has and calculates the number of boxes that will be needed. The answer can be a float.
   b. How many *full* boxes will there be? Assume one box must be filled before books are placed in the next one.
   c. Display your answers with a suitable message. An example is given below.

2. A car travels 440km in 7 hours. Write a program that calculates the average speed of the car and displays it in a) km/h rounded to 2 decimal places b) m/sec rounded to the nearest integer. Display your answers with a suitable message. **(12+2=14 points)**

3. Initialize 3 variables ***x***, ***y*** and ***z*** with values 12.56, 7 and 14.3015 respectively. Print the values of ***x***, ***y*** and ***z***. Evaluate the arithmetic expression $\frac{3^y-(x+y)}{(x-y)\cdot z}$ using the values ***x***, ***y*** and ***z*** defined above and assign the result to a variable. Print the values of ***x***, ***y*** and ***z*** and the final result, with suitable messages. **(18+2=20points)**

Below is a screenshot showing a sample output for each question. Note that while the sample outputs below are all shown together for convenience, you should be submitting three **separate** files.