CSC 11300 - Afternoon Session Lab Assignment 1

()

September 15, 2020

Send your codes to the instructor via e-mail (ayuksel@ccny.cuny.edu) or on Zoom directly. Make a script file that includes example results as comments. Add your name and the session (morning/afternoon). Just the mathematical solutions will not be accepted. You may NOT use the Python3 codes we have not learned so far(loops, conditionals, functions, classes etc).

Question 1.

Write a Python3 program to convert minutes to milliseconds. Run your program for some example user input.

Question 2.

Use the **math** module import to use square root and compute the roots of a quadratic equation. Run your program for the coefficients a, b, c as 1, 2, 1 respectively.

$$\Delta = b^2 - 4ac$$

$$x = \frac{-b \pm \sqrt{\Delta}}{2a}$$

Question 3.

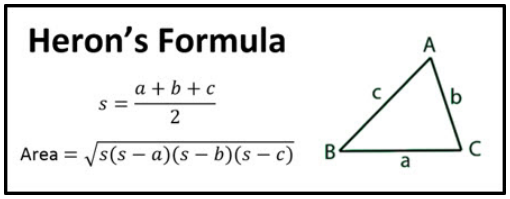
Write a Python3 program to calculate the overall grade(0-100) for the midterm exam score with weight 40% and final score with weight 60%. Both of the exam scores are the user input.

Question 4.

Write the Python3 code to bring all installed modules to the screen, and then pick some of it to view the functions, variables defined in it.

Question 5.

Write a Python3 program to calculate the area of a triangle. Use Heron's formula given below to calculate the area. Side lengths are the user input.



Question 6.

Say you have a cube with side of n. And you have some amount of marbles (round, sphere!) with radius $n/4$ How many marbles can you fit in the cube? Obtain the solution by using Python3 and test your program with some sample user input.

Question 7.

Write a Python3 program to convert a Celsius value (user input) to Fahrenheit, Kelvin, Réaumur, and Rankine and print them all.