CSCE 206 Spring 2020 Lab Assignment: #2

Submission Deadline: 23:59, Feb 23rd, 2020 (Sunday).

1. Follow the submission guidelines in the below link and make the submission through eCampus.
   https://prathiksha1995.github.io/CSCE206//Submission.html
2. Add comments to your code including your name, UIN and the class section you are in with block comments to the head of your code file.

Question 1. Geometry Calculator (50 points)

Write a program to calculate surface area and volume of a sphere (ball). The program will ask user to input radius (meter(s)) of a sphere and return its area and volume (output should round to three decimal places). Use macro **#define** for value of π (suppose $\pi = 3.1415927$). Learn to use **pow** function for evaluating square and cubic in **math.h** of C programming library (Google "pow c programming"). You can use **scanf** function and **double** type for radius input. Name your program file Hw2_q1_code.c.

Example input and output: (Text in purple is what the program should print on the screen to instruct the user, text in black is what the user types in or the program outputs).

Please input a radius (meter(s)) for a sphere: 11.32

Surface area (square meter(s)): 1610.285, Volume (m^3): 6076.142

When using GCC to compile Question 1, Lab2, please add -lm to the end of command to avoid error return.

Like: "gcc filename.c -o outputfilename -lm"

Question 2. Sorting (50 points)

For a random input of three numbers, design a C program to store these three numbers, sort them, and then output your results from smallest to largest. You can use **scanf** function and use **double** type for numbers input. Name your program file Hw2_q2_code.c.

Example input and output: Text in purple is what the program should print on the screen to instruct the user, text in black is what the user types in or the program outputs).

Please input three numbers: 112.38 43.77 5.91

Sorting smallest to largest: 5.91 43.77 112.38

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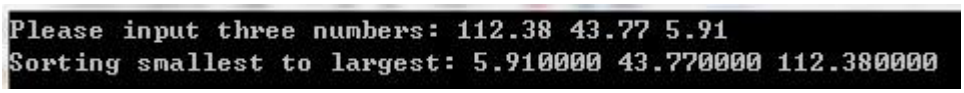

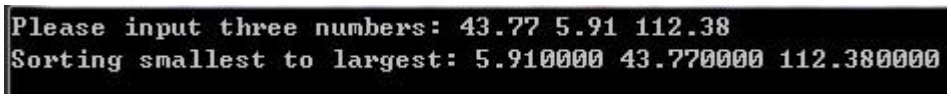

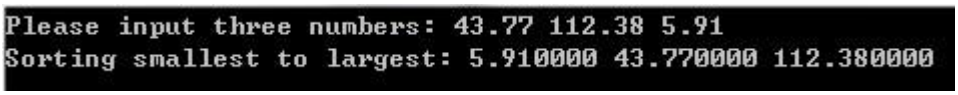

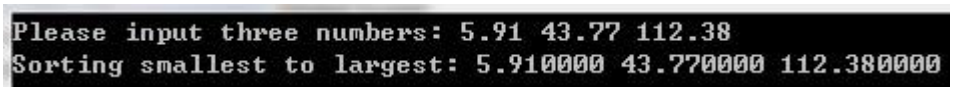

Hint: Use the method you learned from Problem 2 of Lab 1.