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>

1. 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 π = 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.