



Assignment 1

Due Oct 1, 2021 by 11:59pm **Points** 10 **Submitting** a file upload **File Types** zip, cpp, and h
Available Sep 20, 2021 at 10am - Oct 14, 2021 at 11:59pm

This assignment was locked Oct 14, 2021 at 11:59pm.

Please submit a zip file, which contains two .cpp files called main.cpp and functions.cpp, as well a copy of the functions.h file
Your zip file should be named *wiscID*_asg1.zip, where *wiscID* is your Wisc ID/NetID (the username you use on Canvas, *not* the 10-digit number on your wiscard).

For full details, read: [assignment 1.pdf](#) ↓

Get header file for your functions here: [functions.h](#) ↓

Program Summary:

For this first "real" program of the semester, you'll create a simple utility to help with geometry homework. Specifically, you'll write a program to calculate the areas of circles, triangles, and rectangles, as well as volumes of spheres, cones, and boxes.

Since we're sticking to command-line (GUI coding is its own entire topic), we'll try to create something reasonably user-friendly with a menu-based interface. Each menu will have a few options, and will wait for the user to enter an option. The program will then respond based on the selected option.

You'll also get some practice writing functions in C++. We will provide a header file with function headers for calculating each area/volume required for this program. You will need to write the function bodies, and set up the right include statements to call those functions in your program.

Rubric

Item	Points
Program builds and runs without compile errors	2
Program has a main menu, with all 3 options specified	1
Menu for 2D calculations has all 3 required shapes, in the correct order	1
Menu for 3D calculations has all 3 required shapes, in the correct order	1
Area calculation functions are implemented correctly	1.5
Volume calculation functions are implemented correctly	1.5
Program re-prompts for new input when users give invalid inputs	1
Program waits for user to enter a number after printing a calculation	0.5
Program gives reasonable prompts when asking for user inputs	0.5
Total	10

Submission

✓ **Submitted!**
Oct 1, 2021 at 8:57pm
[Submission Details](#)
[Download wzhi3_asg1-1.zip](#)

Grade: 10 (10 pts possible)
Graded Anonymously: no

Comments:
No Comments