

“Lab 4 – Simple Functions” by Phill Conrad is licensed under CC BY-NC. Accessed from www.engage-csedu.org.

CS16, 10S, H04, due **Wed Lecture 04.07**—Prep for lab02, Simple function definitions (handout)—Total Points: 50

Available online as <http://www.cs.ucsb.edu/~pconrad/cs16/10S/homework/H04>—printable [PDF](#)

Name: _____ (4 pts) Umail Address: _____ (4 pts) @umail.ucsb.edu

Lab Section (2 pts)—circle one: 9am 10am 11am noon unknown

(Note: For now, circle the lab section you are registered for on GOLD. If you need to request attendance at a different lab section because of an ACTUAL SCHEDULE CONFLICT, please email pconrad@cs.ucsb.edu with details)

This assignment is due IN Lecture on Wednesday, 04.07.
It may ONLY be submitted Lecture, in Chem 1171 at 1pm on Wednesday.
You must come IN PERSON to turn it in during your assigned Lecture section.

Late Policy: No email submission allowed—and don't "slip it under my door". If you need to make it up, you must do so during office hours, or make an appointment to see me, and you must request this appointment within 48 hours of when the assignment was originally due.

Personal Day/Sick Day policy: Everyone is permitted one "personal day/sick day" when you get to make up a missed homework assignment for free during office hours or via appointment. After that, you may not make up the homework assignment—you can only earn back the points through extra credit opportunities.

(For more details, see the [syllabus](#) and the [homework policy](#))

For this assignment, the reading is a handout that was distributed in lecture, and is also available online at this link:

<http://www.cs.ucsb.edu/~pconrad/cs16/10S/homework/H04/handout>

Once you've read that handout, write answers to the questions on the reverse side of this sheet (use the [PDF link](#) to print a copy of this if you weren't in class).

1. (10 pts) Write a C function definition for a function called `areaOfTriangle` that returns the area of a triangle as a real number. The function should take two parameters that are both real numbers, namely `base` and `height`. The formula for area of a triangle is $1/2$ base times height.

Please turn over for more questions to answer

Continued from other side

2. (10 pts) Write a C function called `howManyEggs` that return an integer. The function should take an integer parameter called `dozens`, and returns the value of that parameter, multiplied by 12.

3. (10 pts) Write a C function that takes the radius of a circle as a parameter (a real number) and returns the area of that circle. Use the value 3.14159 for pi.

(Note: in a real program we'd probably want to use 3.141592653589793238462643—that's more like the accuracy that a double value can hold, but that's too much to expect you to write out for a homework assignment.)

4. (10 pts) Write a C function that takes a value in inches and returns the corresponding value in centimeters. You choose an appropriate name, and a name for the parameter. The conversion factor is $1\text{in} = 2.54\text{ cm}$.