

CSI 201 — Computer Science I

Homework #06 - due March 8, 2006

Write the following program on sampson. Hand it in by printing the source in GLDS 202 using `enscript hw6.cpp`. To receive a grade, your program MUST compile and execute on sampson in the 201 directory under the file-name `hw6.cpp`

Remember to always `cd 201` and save your work. Your program output should exactly match the sample execution shown below for full credit. Executing `./p201` will test your program against some other sample executions. To receive a grade higher than C, you should have all PASS when executing `./p201`. This is a necessary but not sufficient quality to receive a grade greater than C (as you must still follow the instructions of the assignment).

In this homework, you will extend homework five but include a call by reference function for input and a while loop that allows the user to compute the computation for as long as desired. You should still have a function to compute the distance based on acceleration, velocity and time and an output function which takes acceleration, velocity and time as inputs, but only performs the last output line in the sample executions. This output function should call the function you've written to compute distance.

Inside this file, you will write a paragraph inside a multi-line comment. This paragraph will describe why call by reference is valuable in this situation. The paragraph should also describe at least one other situation in which call by reference is of value.

Sample Execution:

```
Input floating point velocity in ft/s: 0
Input floating point acceleration in ft/(s*s): 32.2
Input floating point time in s: -1
ERROR time is negative
Input positive time in s: 12
The distance is 2318.4 feet.
Computer another? (Y/N): Y
Input floating point velocity in ft/s: 3
Input floating point acceleration in ft/(s*s): 2
Input floating point time in s: 1
The distance is 4 feet.
Computer another? (Y/N): N
```