

Read all instructions
before beginning your work.

COMP1200-C - Assign 07
Due midnight – Thursday – March 12, 2015
Submit assign07.c **via Canvas**

NOTE:
Your submitted file(s) **MUST** be
spelled and cased as instructed.
[-5 points for not doing so.]

Before you start writing your program:

Save a copy of the balloonValues.txt data file from the Assign05 Announcement and in your COMP1200/assign07 folder. If you do not have folders set up for your assignment files, this is a good time to start. Your assign07.c will look in the folder where it is saved for the data file. A development plan is a process that guides you through solving a problem and creating an algorithm. Create your own algorithm and use it as comments throughout your program. Use section comments to group your statements as well as comments from your algorithm.

Problem:

Program: assign07.c

On a hot Saturday afternoon, you and your friends notice an empty baby swimming pool on the lawn of your apartment complex. So, why not see if you can fill it with water from water balloons thrown from your second floor balcony.

You will modify your assign06.c by adding two call-by-reference user-created functions. Include the following function prototypes in your assign07.c. You may modify the variable names but not the function names, return types, or parameter order, quantity, and data type.

```
// FUNCTION PROTOTYPES=====
void isHit( double *poolWater, double balloonVolume, int *numHits,
           int *holdBalloonCount, int numBalloons );
Add the balloon water to the pool water; count hit; remember the balloon that filled the pool.
void addOne( int *count );
Add one to a count. Use for counting balloons and hits.
```

Problem Constants:

See previous assignment.

Problem Inputs:

See previous assignment.

Problem Outputs:

See previous assignment.

Other variables:

See previous assignment.

New commands:
call-by-reference functions
pointer type paramters

Instructions:

- ☐ See Standards for Documentation of C Programs on the Resources page on Canvas.
- ☐ Insert comments at the top and throughout each file.
 - o Include the follow comments at the beginning of this (and ALL) files.

```
// submitter's name, GROUP #
// other group members' names
// assignment number
// date you completed the assignment
// statement(s) about collaboration
// a short narrative about what the file does
```

Grade of ZERO for files with submitter name not part of Canvas group
Type “none” if submitting alone.
Zero points for comments if no collaboration statement
 - o Use the algorithm given as comments throughout your program.
- ☐ Use descriptive variable names.
- ☐ Use Sample Input/Output as a guide.
- ☐ Use **Generate CSD** to ensure correct indenting.
- ☐ Represent ALL given values as constants.
- ☐ See previous assignment.

-5 points for absence of any of these required comments
at the top at the top of each file.

If you do not submit individually,
there will be a 5 POINTS PENALTY for not joining a group.
Groups can be 2-4 students.
DO NOT join a group unless you have worked with the other
members. If you do, you will be removed from the group and
given the grade of zero.

Sample Input/Output:

Same as previous assignment.

Submit via Canvas:

assign07.c C program file

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as instructed. [-5 points per file for not doing so.]