**Take Home: Quiz 2 (15 pts) – Introduction to Computer Programming and C**

Using Canvas <https://canvas.wsu.edu/>, please submit your solution to the correct quiz folder. Your solution should be a .pdf file with the name <your last name>\_quiz2.pdf and uploaded. To upload your solution, please navigate to your correct Canvas ***lab*** course space. Select the “Assignments” link in the main left menu bar. Navigate to the correct quiz submission folder. Click the “Start Assignment” button. Click the “Upload File” button. Choose the appropriate .pdf file with your solution. Finally, click the “Submit Assignment” button.

1. (2 pts – 1 pt correct type, 1 pt correct initializing) Declare a *character* variable in C, and set it to the *null* character.

char thing = `\0`;

1. (2 pts) Write a single statement that reads a *double* precision floating-point number from the keyboard. Please do NOT show the prompt statement for this question. There is NO need to show the variable declaration either.

scanf(“%lf”, &double);

1. (2 pts) In your own words, what is a *data* type? Explain.

A data type is a format that data can be held in such that the computer can read it. Each of these has its own sets of guidelines on how they are used together(with other of the same data type) and how they interact with other data types. They can interact with each other through operations.

1. (6 pts) Provide each result for the following C language expressions. Numbers listed without a decimal point are considered integer values and ones with a decimal point are considered double precision floating-point values. Show up to 6 digits after the decimal point in your answer.
   1. 7 % 11 =\_\_\_7\_\_\_\_\_
   2. 52 / -9 =\_\_-5\_\_\_\_\_\_\_
   3. 17.5 / 3 =\_\_\_5.833333\_\_\_\_\_\_\_
   4. -4 % 3 \* 5.5 =\_\_\_-5.5\_\_\_\_\_\_
   5. 10 - 5 \* -2 =\_\_\_\_\_\_\_20\_\_\_
   6. 22.5 – 11 / 4 + 1 \* 2 % 14 =\_\_\_\_22.5\_\_\_\_\_\_
2. (3 pts) What C data types should be used to *best* represent the following? For each blank, you may list *int*, *double*, or *char* only. These types may be used multiple times.
3. The first letter of a color? \_\_\_\_\_char\_\_\_\_\_\_\_\_\_\_
4. The number of residents in Pullman? \_\_\_\_int\_\_\_\_\_\_\_\_\_\_\_\_
5. The number of posts an individual has made on Instagram? \_\_\_\_int\_\_\_\_\_\_\_\_\_\_\_\_\_