**Take Home: Quiz 3 (15 pts) – Modular Design & Functions in 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>\_quiz3.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. (4 pts) How do we generally decide on functions that we need to design for our programs? Explain in your own words!

When we have an algorithm that we need to implement multiple times throughout a code on a variety of inputs, it may be more efficient to just write a function and call it with inputs when necessary. This saves a lot of time and work.

1. (4 pts – 1 pt for return type, 3 pts for input parameters) Provide the prototype for a function called volume\_pyramid()that accepts three *double* precision input parameters, which represent the *values* of the *length, width,* and *height* of a pyramid. The function computes and returns the *volume* of the pyramid defined by length (l), width (w), and height (h).

double volume\_pyramid(double l, double w, double h);

1. (7 pts – 1 pt for the header, 1 pt for variable declaration(s), 3 pts for computation, 2 pts for return value) Provide the function definition for volume\_pyramid(). Also, be sure to provide the function header for volume\_pyramid(). Recall, v = (l x w x h) / 3.

double volume\_pyramid(double length, double width, double height) {

return ((length \* width \* height)/3.0);

}