Your Name: _____

ID#:   _____

Take Home: Quiz 3 (15 pts) – Modular Design & Functions in C

Submit a hard-copy of your solutions in lab this week!

1. (2 pts) What is a function? Explain in your own words!

See Quiz 2

2. (2 pts) What is a structure chart? Explain.

A structure divides a problem into subproblems and has a hierarchical relationships of those subproblems.

3. (1 pts) What is a pointer?

A pointer is a variable that points/stores the address of another variable.

4. (3 pts – 1 pt for return type, 2 pts for input parameters) Provide the prototype for a function called `volume_pyramid()` that accepts two *floating-point* input parameters, which represent the *base (B)* and *height (h)* of the square pyramid. The function returns the *volume (V)* of the pyramid defined by the two parameters.

   double volume_pyramid(double B, double h)
   {   double V;

           return V;
   }

5. (7 pts – 1 pt for the header, 1 pt for variable declarations, 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 = 1/3 x (B x h)

   double volume_pyramid(double B, double h)
   {   double V;
           V = 1/3 * (B * h);
           return V;
   }