CSCI 259/390  
Homework 5 – Intro to Classes

**Time Due:**  
Due: Oct. 21, 10:00 PM

**Work to Do:**  
For this homework, you are to do the following:

1. Create three C++ files named (use your actual last name):
   a. `lastname_hw5.cpp`
   b. `lastname_hw5.h`
   c. `lastname_hw5_main.cpp`

2. In "lastname_hw5_main.cpp":  
   a. Fully test your code implemented in lastname_hw5.cpp

3. For "lastname_hw5.cpp" and "lastname_hw5.h" implement the following class:
   ```cpp
   class Rectangle  
   {
   public:
   Rectangle(double length, double width);
   void set_dimensions(double new_length,  
                       double new_width);
   double get_width();
   double get_length();
   double get_area();
   double get_perimeter();
   Rectangle make_copy();
   void print_info(string name);
   }
   ```
   a. You will have to create your own private internal variables (similar to the internal radius "r" in example 12 handed out during lecture);

4. The instructor will use his own main to test your code.

5. 10 points of the assignment will be for "pretty print." In other words, your output should be easy to read and understand.

6. 10 points of the assignment will be for "pretty code." In other words, your code you be formatted cleanly and with comments.

**Note:**
- Remember to save, compile, and test often. It is much easier to write code if you compile and test it as you go instead of trying to write the whole thing at once.

**Submission:**
1. Use WinSCP to copy your program from Turing to your machine  
2. Send your code (all .cpp and .h files) as an attachment to chhumph1@olemiss.edu  
3. Subject of email should be: Lastname – HW 5
Example Output:

a: length: 3.5, width: 4.5, area: 15.75, perimeter: 16

***** Rectangle: a *****
Length: 3.5
Width: 4.5
Area: 15.75
Perimeter: 16
***************

***** Rectangle: a *****
Length: 10
Width: 20
Area: 200
Perimeter: 60
***************

***** Rectangle: b *****
Length: 10
Width: 20
Area: 200
Perimeter: 60
***************

***** Rectangle: b *****
Length: 2.3
Width: 5.8
Area: 13.34
Perimeter: 16.2
***************