CSC 330 Object Oriented Software Design   **Lab1**

Create a class **ComplexNumber**. It will contain two private data members **real** and **imag** defined as doubles. Your class should include a constructor that allows the data members to be specified as parameters of the constructor. A default (non-parameterized) constructor should initialize the data members to 0.0.

Your class should include the following public member functions (write their prototypes and their definitions): **getRealPart( )** which returns the real part of the complex number; **getImagPart( )** which returns the imaginary part of the complex number; **setReal** and **setImage** which will store values into a the private data members **real** or **imag**; as well as member functions **addComplex, subtractComplex** and **multiplyComplex**.

Include the function print (it prints the real and imaginary parts of the **ComplexNumber** object) as a member function of the class.
Write a driver program to test all of the above functions.
Submit printout of your source code and your output.

NOTE: You should create <u>three separate files</u> (.h file for class declaration; .cpp file for member function definitions and .cpp file for driver program).

Posted: January 26
Due: February 5