Homework – polymorphism

In this homework, you are required to do coding of Newton's method, a method for finding the roots of a function. For the details of this method, please take a look at wiki: http://en.wikipedia.org/wiki/Newton's_method

The details of your work:

1. Build a base class named as RealFunction, with pure member functions
   virture double f(double) = 0;
   virture double fDerivative(double)= 0;
2. In base class define the function
   double getRoot();
   which use Newton's method to find a root.
3. Build class named as SinFunction derived from RealFunction. Inside the class, define function f and fDerivative as sin function and cos function respectively.
4. Build class named as MyFunction derived from RealFunction, inside the class define any real function you like.
5. Write main.cpp, in which instantiate an object of SinFunction and an object of MyFunction, call the method getRoot() to get the root. Print out your result.
6. Run your code and write a report. Do not forget to write your code documentation.
7. zip your files and submit to blackboard.