Programming Challenge 1
(Full Score: 1 point)

(**Due by 1/24/2011/Monday midnight at Moodle**)

Your name:	Score:

We are going to create a program that will evaluate the value of the mathematical function sin(x). The evaluation involves adding terms of series together of a series together till to a certain term (or desired accuracy) is reached.

The value for the function sin(x) is found by:

$$\sin(x) = x - (x^3/3!) + (x^5/5!) - (x^7/7!) + \dots$$

1. For this project, make the user aware of the mathematical function you are able to solve for and ask for a value of x that you would like evaluated. The mathematical function should have its own method in this class. The value of x should be the only field variable (it does not have to be an integer).
2. Ask the user for a value of the number of terms (the value of the n).
3. (**important!!**) The time complexity of the algorithm(s) you have used in your code should be O(n).

(Having successfully completed this project will automatically add 50 points to your assignment grade whether you have or have not completed Assignment#1 in addition to this 1 point for your Challenge Project Grade!).

- No late submission will be accepted.
- Your grade for this project will be **0** or **1**—you will not receive any partial credit for incomplete work or complete implementation with time complexity that is not O(n).