Project 2: Iterative vs. Recursive Algorithms to Compute the Factorial of an Integer
Due: February 18, 2016: 1 PM

Implement the iterative and recursive algorithms to find the factorial of an integer. Compare their execution times (in milliseconds) for integer values ranging from 1 to 20. Plot the execution times incurred in logarithmic scale (as the y-axis for the iterative and recursive algorithms) and the integers ranging from 1 to 20 (as the x-axis). Use *long* as the data type of the variable to store the factorial of an integer.

Submission
(1) Submit a hardcopy of your codes for the iterative and recursive algorithms, the Excel plots of the execution times vs. integer values as well as your interpretation of the results. If you ran out of memory while running the recursive algorithm, report your results until the largest integer value for which you were able to compute the factorial without running out of memory. Also, explain why your program ran out of memory during execution.
(2) Submit a desktop-recorded video of your explanation of the codes for the iterative and recursive algorithms and your interpretation of the results for the execution time for the two algorithms.