ENGR4300 Quiz 2
Summer 2010

Name_____

8. Take Home Question (25 points)

The University of Dayton maintains a database for the average daily temperature at a large number of cities. http://www.engr.udayton.edu/weather/citylistUS.htm This information is used to, for example, analyze energy savings for changes in buildings.
   a) Download the file for Albany. This is a txt file.
   b) Open the file with excel. You will notice that when you open the file, excel will ask you a bunch of questions about how you want to display it. The default works fine, so just hit the finish button. The data should all be in the first four columns.
   c) It appears that a few of the data points are bad so some very low temperatures are shown. Fix these data points by replacing them with the average of the nearby data or using some other reasonable approach.
   d) Plot the data as a line chart, providing useful labels so that people can figure out what is being plotted vs. what.
   e) The data should look mostly like a well known function. Add another column to the spreadsheet showing this function and make it look as much like the data as you can.
   f) Discuss why the data looks like the function you have chosen and also discuss why it is not a perfect fit.