EECS 560 Lab 12 week of April 18

The topic for this lab is shellsort as discussed in class and in the text. You are to do timing tests and use those results to estimate the time complexity of the algorithm for the given increment sequences. You are to sort lists for the following n values: 100,000, 200,000, 300,000 and 400,000. You must run at least five tests for each n value for the increment sequences in the file MLAB12.txt (Monday), TLAB12.txt (Tuesday) or RLAB12.txt(Thursday). There will be one increment sequence for each value of n i.e. the file contains 4 sequences and the same increment sequence is to be used for all five tests for the same value of n. The sequences are comma separated lists, each on a separate line in the file. For each test, randomly generate n values in the range between -3n and 3n. In your lab report include your code, all timing results, and for each n value the average time needed to sort the list. Plot the results and estimate the complexity of the algorithm based on those results.

All labs are due Saturday before midnight.