

Lab 3
CSCI232
Assignment due 9/25, at 11:30pm

Purpose: To work with sorting algorithms and compare them

1. Programming: Create a program that uses an array of 5,000 random numbers and sorts it with selection sort, insertion sort and shell sort. Use Stopwatch to timing each sort.
2. Do Not Program: Determine what will be the performance of each sort using 10,000 numbers using the power law we learned in section 1.4.
3. Show the trace of ShellSort (no programming) with the input

E A S Y Q U E S T I O N

Due: Wednesday, 9/25 at 11:30pm

Note: work with a lab partner – only 1 of you will submit your answers to brightspace in the lab3 folder. In each of your files that you submit, put lab partners: <your name and partner's name> at the top of the file (along with your name of course).

Submission You will submit the source files and table of times for question 1. For 2 and 3, write up your answers and submit to brightspace – either a picture or scan of your handwritten answer or a file from the computer. (Do not turn anything in to the TAs). Zip the files together and name them: <partner1first/last name>_<partner2first/lastname>.zip.

Rubric:

1. – 8 pts (2 pts each for running each sort, 2 pts for showing a table of running times)
2. – 6 pts (3 pts for showing work, 3 pts for correct calculation)
3. – 6 pts (3 pts for showing your work in the trace, 3 pts for correct trace)