

COMP 3711 Design and Analysis of Algorithms
Spring 2015
Programming Assignment 2

Implement radix sort in your favorite programming language, and perform the following experiments.

1. Generate an array of n random 32-bit integers. Run radix sort and compare its running time with that of quicksort you obtained in Programming Assignment 1 for the same values of n . Plot the running times of the two algorithms in the same figure for various values of n .
2. Repeat the above experiments on 8-bit, 16-bit, and 64-bit integers, and see what happens.

What to submit:

1. A printout of your radix sort code.
2. The figures you have plotted.
3. A brief discussion of what you have observed from the experiments.