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CS 302

Run 1

$ ./main.exe

**Sorting for 1,000 numbers**

**Bubble Sort Results**

Average CPU run time: 0.0084

Average comparisons: 498905

Average swaps: 252846

**Quick Sort Results**

Average CPU run time: 0.0095

Average comparisons: 521834

Average swaps: 38887

**Testing sorted 1,000 list**

**Bubble Sort Results**

Average CPU run time: 0.0109

Average comparisons: 0

Average swaps: 0

**Quick Sort Results**

Average CPU run time: 0

Average comparisons: 0

Average swaps: 0

**Sorting for 10,000 numbers**

**Bubble Sort Results**

Average CPU run time: 0.8836

Average comparisons: 49990814

Average swaps: 2.49005e+07

**Quick Sort Results**

Average CPU run time: 0.9558

Average comparisons: 51547307

Average swaps: 3.52614e+06

**Testing sorted 10,000 list**

**Bubble Sort Results**

Average CPU run time: 0

Average comparisons: 0

Average swaps: 0

**Quick Sort Results**

Average CPU run time: 0

Average comparisons: 0

Average swaps: 0

**Sorting for 100,000 numbers**

**Bubble Sort Results**

Average CPU run time: 84.99

Average comparisons: 704934809

Average swaps: 2.5089e+09

**Quick Sort Results**

Average CPU run time: 90.432

Average comparisons: 840650631

Average swaps: 3.30629e+08

**Testing sorted 100,000 list**

**Bubble Sort Results**

Average CPU run time: 0

Average comparisons: 0

Average swaps: 0

**Quick Sort Results**

Average CPU run time: 0

Average comparisons: 0

Average swaps: 0

Run 2

./main.exe

**Sorting for 1,00 numbers**

**Bubble Sort Results**

Average CPU run time: 0.0094

Average comparisons: 498905

Average swaps: 252846

**Quick Sort Results**

Average CPU run time: 0.0099

Average comparisons: 521875

Average swaps: 38525.3

**Testing sorted 1,000 list**

**Bubble Sort Results**

Average CPU run time: 0.0107

Average comparisons: 0

Average swaps: 0

Quick Sort Results

Average CPU run time: 0

Average comparisons: 0

Average swaps: 0

**Sorting for 10,000 numbers**

**Bubble Sort Results**

Average CPU run time: 0.8659

Average comparisons: 49990814

Average swaps: 2.49005e+07

**Quick Sort Results**

Average CPU run time: 0.925

Average comparisons: 51547307

Average swaps: 3.52614e+06

**Testing sorted 10,000 list**

**Bubble Sort Results**

Average CPU run time: 0

Average comparisons: 0

Average swaps: 0

**Quick Sort Results**

Average CPU run time: 0

Average comparisons: 0

Average swaps: 0

**Sorting for 100,000 numbers**

**Bubble Sort Results**

Average CPU run time: 85.423

Average comparisons: 704934809

Average swaps: 2.5089e+09

**Quick Sort Results**

Average CPU run time: 90.222

Average comparisons: 840650631

Average swaps: 3.30629e+08

**Testing sorted 100,000 list**

**Bubble Sort Results**

Average CPU run time: 0

Average comparisons: 0

Average swaps: 0

**Quick Sort Results**

Average CPU run time: 0

Average comparisons: 0

Average swaps: 0