

WRITEUP.pdf

Githika Annapureddy

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1 Shell Sort

Shell Sort, 50 elements, 626 moves, 598 compares Shell Sort, 100 elements, 2105 moves, 2037 compares Shell sort uses around the same number of moves and compares as Heap sort, but significantly more than Batchers Sort and less than Quick Sort.

2 Heap Sort

Heap Sort, 50 elements, 810 moves, 517 compares Heap Sort, 100 elements, 1920 moves, 1237 compares Heap sort uses around the same number of moves and compares as Shell sort, but significantly more than Batchers Sort and less than Quick Sort.

3 Quick Sort

Quick Sort, 50 elements, 3822 moves, 1225 compares Quick Sort, 100 elements, 15147 moves, 4950 compares My Quick Sort calculates more moves and compares than the example. Quick sort uses far more compares and moves than the other sorts. Quick sort is supposed to use the least moves and compares, according to the example test harness executable, but my implementation does not do that.

4 Batchers Sort

Batchers Sort, 50 elements, 372 moves, 395 compares Batchers Sort, 100 elements, 1152 moves, 1077 compares Batchers sort uses less moves and compares than any of the other sorts. Thus, it is the most efficient one.