

Conducted 100 experiments(sorts) for per method, per size.

Method / arrSize	100	1000	10000
Selection sort	12	83	4652
Quicksort	36	75	100
Heapsort w/o ini	9	32	171
Heapsort with ini	6	27	169
BST sort	11	38	188
Splaysort	10	75	263
Merge sort	6	24	105

Unit: Mili-seconds

1. Selection sort is  $O(n^2)$ , so the time-consumption increases quadratically as the size of  $n$  increases.
2. The others are generally  $O(n \cdot \log n)$ , so the time-consumption tend to increase in that order.
3. Heapsort with initialization is theoretically faster than that without initialization, and the result shows that tendency.
4. Quicksort is very fast in large size as generally known.
5. There can be variances in time-consumption, depending on either the distribution or the sequence of the list to be sorted.