|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sort type/ Elements | Quick | Bubble | Merge | Insertion | Heap | Selection |
| 100 | 0.152138 | 0.468487 | 0.138856 | 0.111085 | 0.098407 | 0.225188 |
| 1000 | 1.448325 | 7.512697 | 1.336637 | 5.179921 | 0.968367 | 7.274227 |
| 10000 | 2.228331 | 211.177158 | 3.013169 | 39.857015 | 3.906674 | 104.644662 |
| 100000 | 13.860816 | 30815.81518 | 27.960102 | 2947.523418 | 31.551633 | 5759.146363 |

\* All times are in milliseconds.

For 1,000,000 and 10,000,000 elements the estimated times for Quick and Insertion sort algorithms:

Since Insertion sort time complexity grows exponentially, it’s safe to assume time runtime will be approx. 150 minutes and

Quicksort performance was slightly worse than n\*log(n) => ~150ms and ~1500ms for the next amounts of elements.