|  |  |  |
| --- | --- | --- |
| **Algorithm** | **Time** | **Notes** |
| Selection sort |  | * Slow * In-place * For small data sets (< 1K) |
| Insertion sort |  | * Slow * In-place * For small data sets (< 1K) |
| Heap sort |  | * Fast * In-place * For large data sets (1K – 1M) |
| Merge sort |  | * Fast * In-place * For huge data sets (1K – 1M) |

**Merge sort:**

* Recursive (based case 0 or 1)
* Takes
* Merging takes doubly linked-list
* Height of merge sort tree
* Overall depth is

**Quick sort:**