

| | Best | Average | Worst | Space | Stable |
|-----------|--------|---|----------|--------------|--------|
| Selection | | $O(n^2)$ | | $O(1)$ | |
| Insertion | $O(n)$ | $O(n^2)$ | | $O(1)$ | ✓ |
| Bubble | | $O(n^2)$ | | $O(1)$ | ✓ |
| Merge | | $O(n \log(n))$ | | $O(n)$ | ✓ |
| Quick | | $O(n \log(n))$ | $O(n^2)$ | $O(\log(n))$ | |
| Bucket | $O(n)$ | $O(n + k)$ (k: numbers of buckets) | $O(n^2)$ | $O(n + k)$ | ✓ |
| Counting | | $O(n + k)$ (k: range of the input values, max-min) | | $O(n + k)$ | ✓ |
| Heap | | $O(n \log(n))$ | | $O(1)$ | |

| | Worst | | | Average | | | Space | | |
|--------------------|--------------|--------|--------------|--------------|--------------|--------------|--------|--|--|
| | Insert | Delete | Search | Insert | Delete | Search | | | |
| Vector Ordered | $O(n)$ | | $O(\log(n))$ | $O(n)$ | | $O(\log(n))$ | $O(n)$ | | |
| Vector Unordered | $O(1)^*$ | $O(n)$ | | $O(1)^*$ | $O(n)$ | | | | |
| Linked List | $O(1)$ | | | $O(1)$ | | | | | |
| Binary Search Tree | $O(n)$ | | | $O(\log(n))$ | | | | | |
| Balanced BST (RBT) | $O(\log(n))$ | | | | | | | | |
| Priority Queues | Insert | RMH** | Peek | Insert | RMH** | Peek | | | |
| Linked List | $O(n)$ | $O(1)$ | | $O(n)$ | $O(1)$ | | | | |
| Heap | $O(\log(n))$ | | $O(1)$ | $O(1)$ | $O(\log(n))$ | $O(1)$ | | | |

*: Amortised - ie over a sequence of this operation. Resizing vector $O(n)$

**:: Remove highest priority

