|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Selection | Insertion | Merge | Quick |
| Best Case | O(N^2) | O(N) Sorted  N(C) 0(E) | O (N logN) | O (N logN) |
| Average case | O(N^2) | O(N^2) Partially Sorted  N^2/4 C&E | O (N logN) | O (N logN) |
| Worst | O(N^2) | O(N^2) Unsorted  N^2 / 2 C&E | O (N logN) | O (N^2) |
| Space Complexity | O (1) | O (1) | O (N) | O(1) |
| Stable | No | Yes | Yes | No |
| Inplace | Yes | Yes | No | Yes |
| Comparisons | N^2 /2 |  |  |  |
| Exchanges | N^2 /2 |  |  |  |