

23.5.1 Describe how quicksort works.

Quick Sort picks a pivot. The algorithm scans the list from left to right until the low index is greater than the high index. Then it swaps the pivot with the highest index. The running time is typically $O(nl)$, worst case is $O(n^2)$, best case is $O(n \log n)$.

23. 5. 2 why is quick sort more space efficient than merge sort?

Merge Sort requires an extra
list to merge the two sublists.

23. S. 3 apply which sort to {45, u, so, s9, go
2, 4, 7, 103}

45 11 so sq co 2 4 7 10
10 11
7 50

~~60~~ 10 7 4 2 60
2 59 50 11
~~45~~ 60
2 10 7 4 59 50 11