

Merge Sort :-

[4, 6, 0, 12, 78, 45]

[4, 6, 0] [12, 78, 45] step 1

[4] [6, 0] [12] [78, 45]

[4] [6] [0] [12] [78] [45]

[4] [6] [0] [12] [45, 78] ←

[4] [6] [0] [12, 45, 78]

[4] [0, 6] [12, 45, 78]

[0, 4, 6] [12, 45, 78]

[0, 4, 6, 12, 45, 78] → Sorted Array

Quick Sort :-

Pivot - 45 [4, 6, 0, 12, 78, 45]

[4, 6, 0, 12, 45, 78]

Pivot - 12 [4, 6, 0, 12, 45, 78] [4, 6, 0, 12]

Pivot - 0 [4, 6, 0, 12, 45, 78] [4, 6, 0]

Pivot - 4 [0, 6, 4, 12, 45, 78] [6, 4]

[0, 4, 6, 12, 45, 78] → Sorted Array