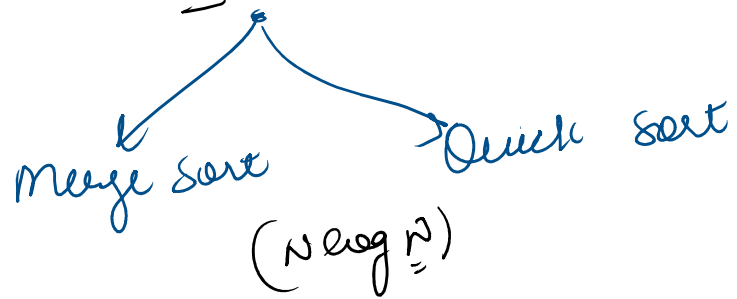
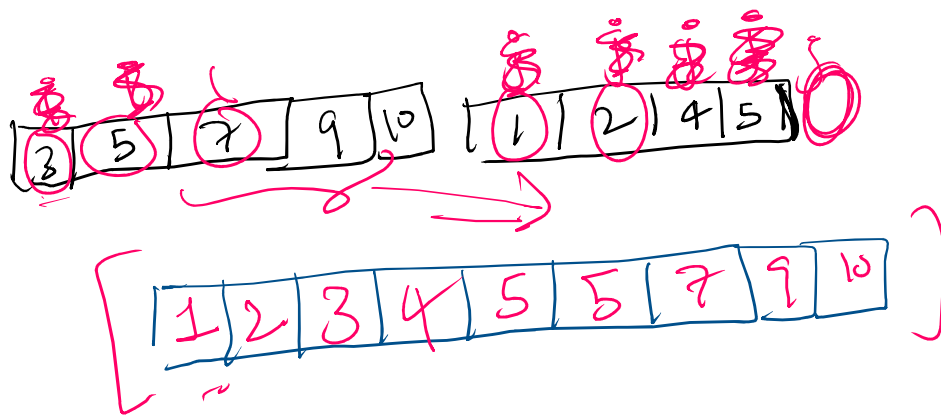
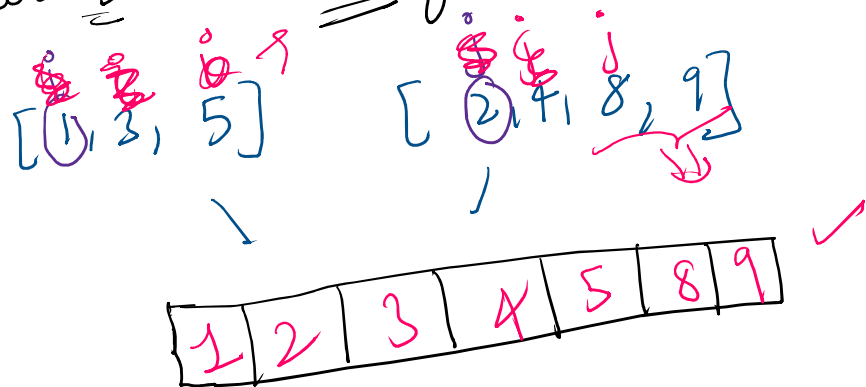


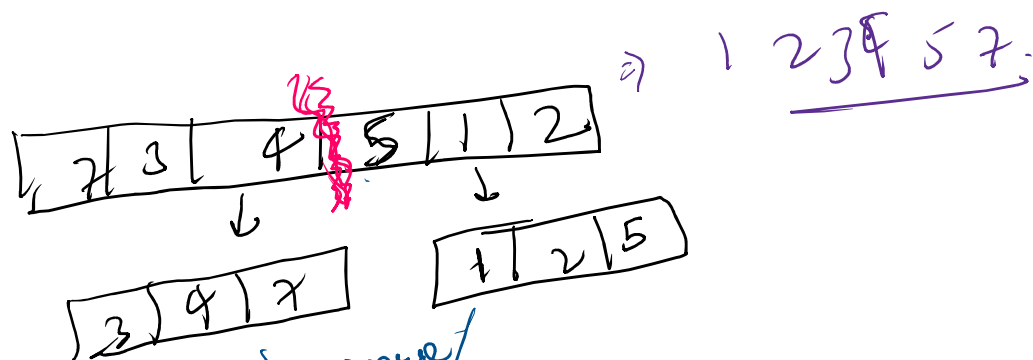
Recursive Sorting Algo

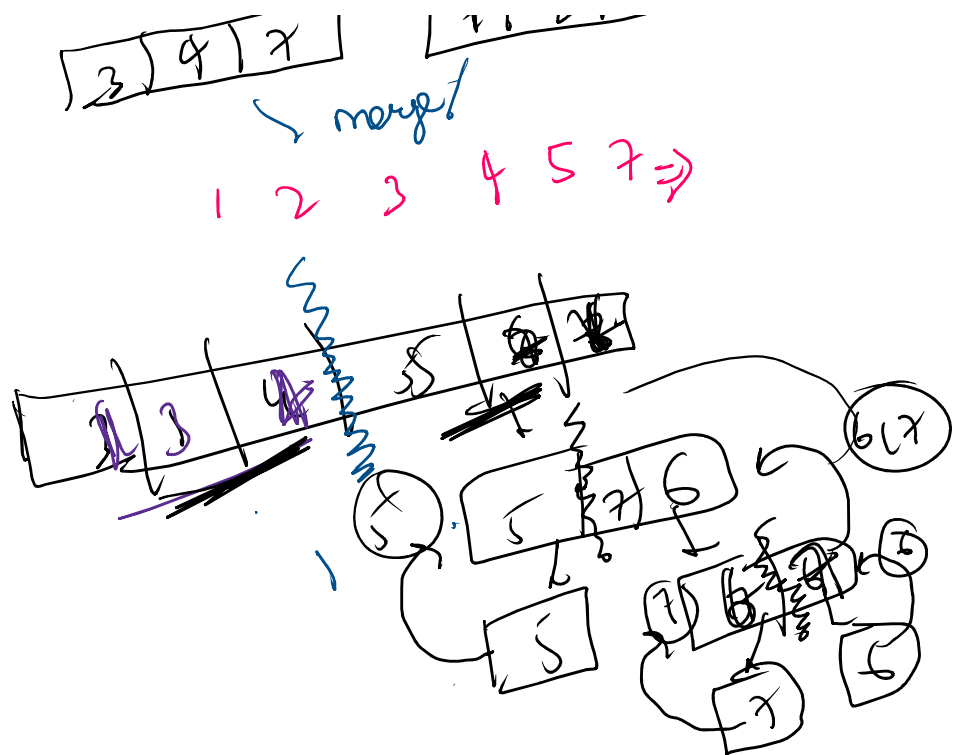


Merging two sorted arrays



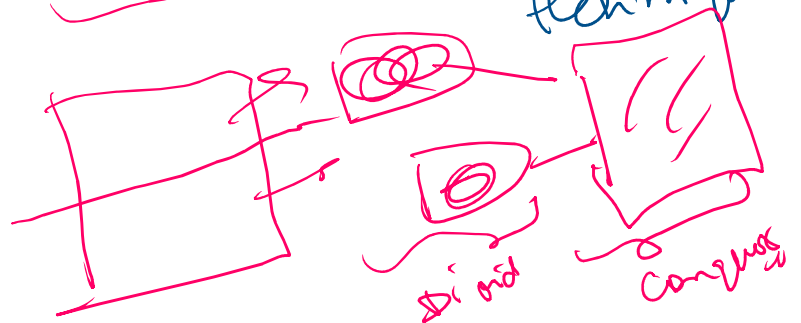
Merge Sort





⇒ Imp points

• Merge Sort is a Divide and Conquer technique



① Merge Sort is stable

T.C $\approx O(n \log n)$
 Conquer Divide

S.C $\approx O(1)$ 😊

... ..

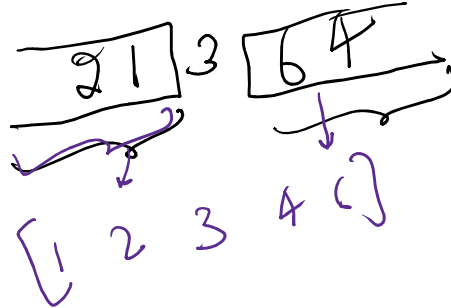
divot

... .. 7 4 6

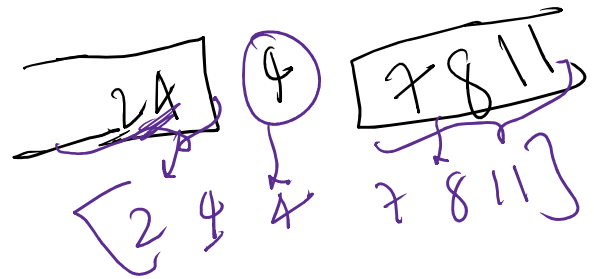
Quick Sort



1 2 3 4 6



7



Avg T.C $\rightarrow O(n \log n)$
 S.C $\rightarrow O(1)$

Worst Case $O(n^2)$



Randomized Quick Sort $\rightarrow O(n \log n)$



1 5 3 4 (2)