

Merge Sort

↳ recursively sort 1st half of input array

↳ " " 2nd " " " "

↳ merge two sorted sublists into

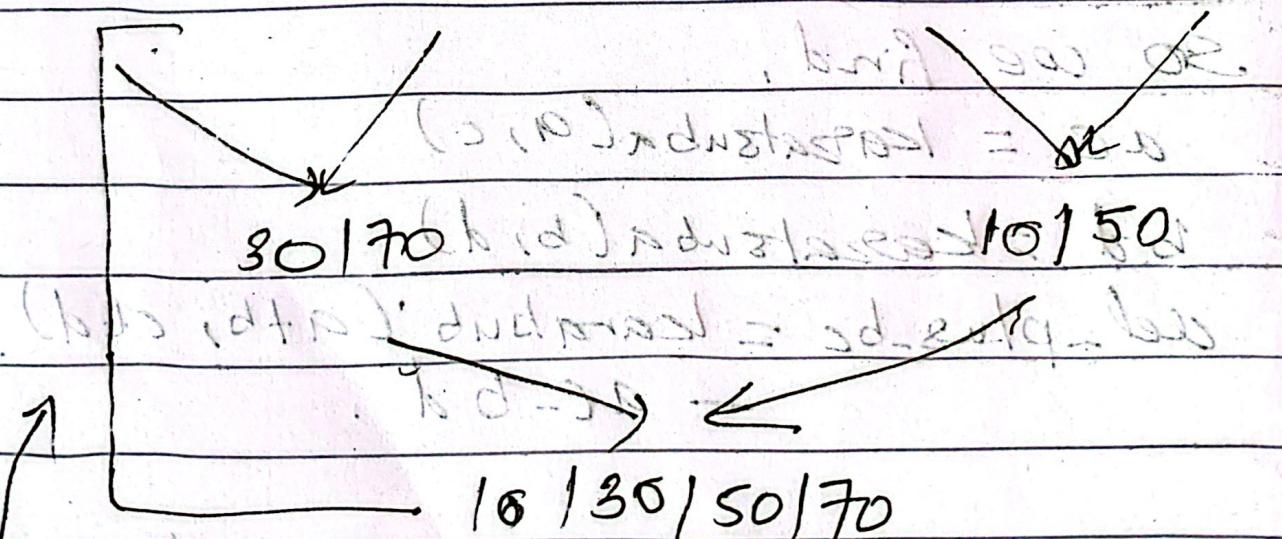
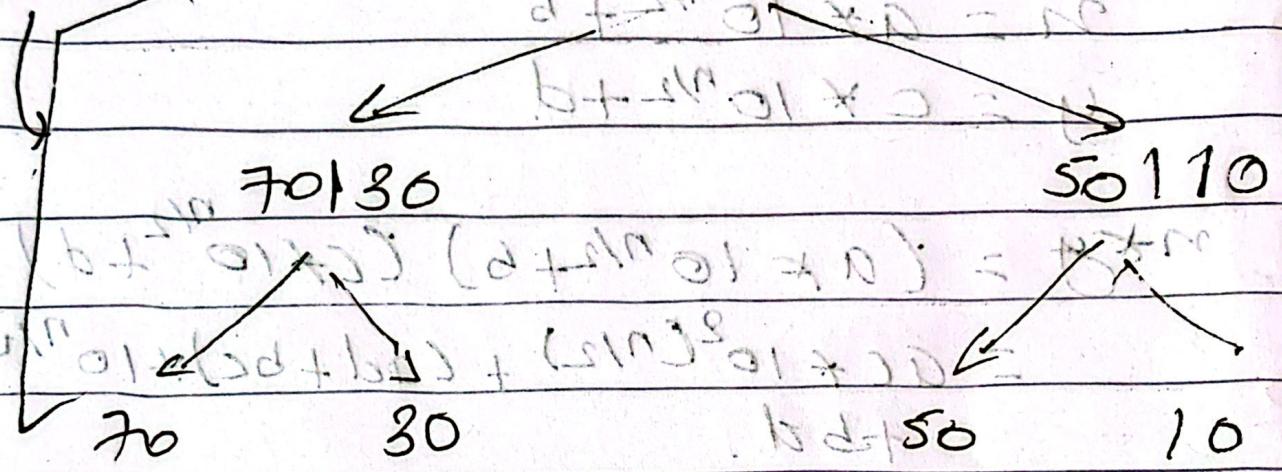
one in $O(n)$

(unsorted) $\xrightarrow{\text{divide}}$ $\xrightarrow{\text{merge}}$ sorted

For e.g.:

unsorted array: 70 | 30 | 50 | 10

divide



conquer & merge