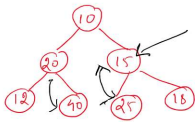


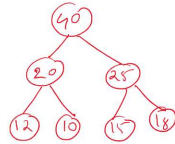
Convert array to Max/Min Heap.

10 20 15 12 40 25 18.

Max Heap (Heapify)

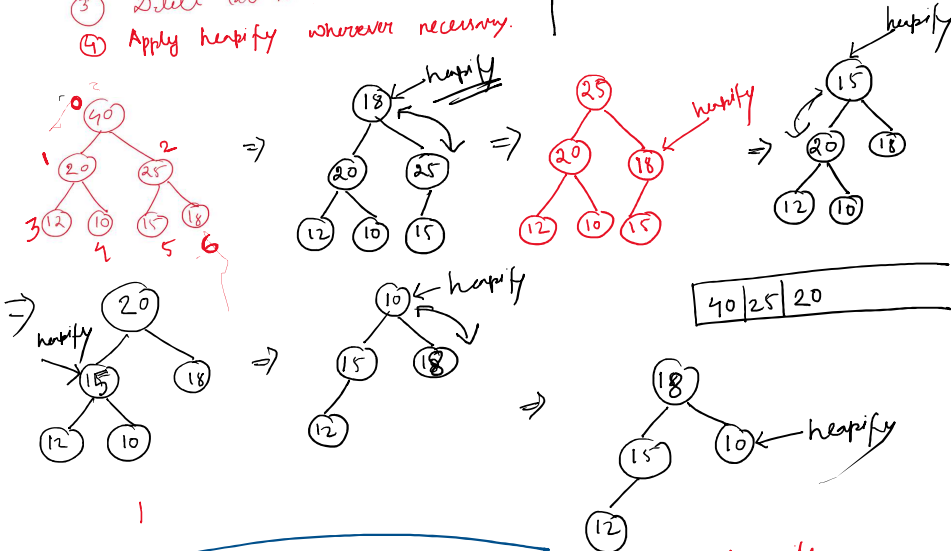


⇒

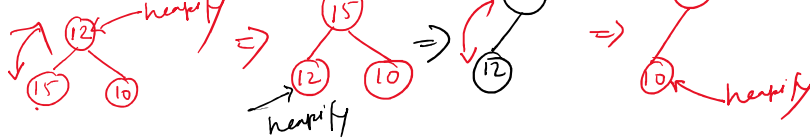


- ① Root value ko Aaj se Utkho
- ② Root → value = Last node value.
- ③ Delete last node.
- ④ Apply heapify whenever necessary.

40 25



40 25 20 18 15 12 10

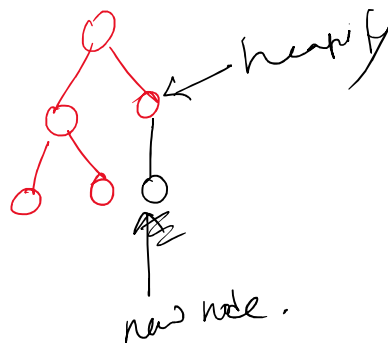
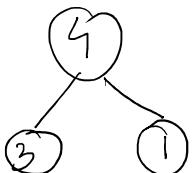


16 ← heapify ⇒

H/w Sort above array using Min Heap.

TC → $n \log n$.

SC → $O(1)$



n = number of nodes / elements in array

ACBT/CBT → Height
= $\log n$.

Max heap construction →
insert 1 node in a tree of
 n nodes → $\log n$.

n nodes insert → $n \log n$.

