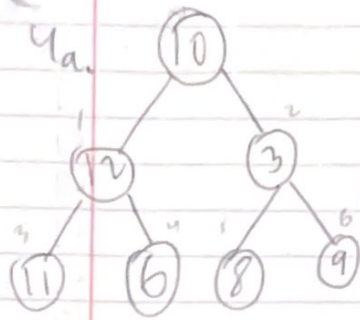
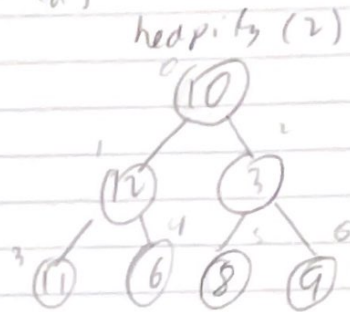


0 unsorted heap Par + 4 (a)

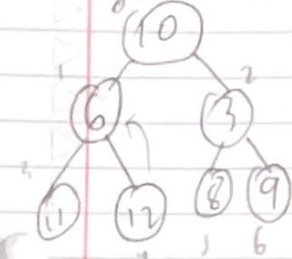


heapify(2)
(don't call heapify on leaf nodes)



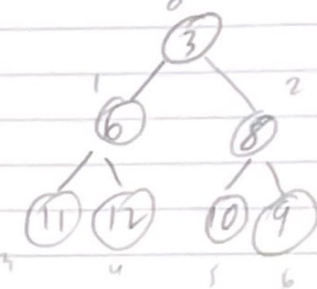
no change as 3 is less than 8 and 9

heapify(1)



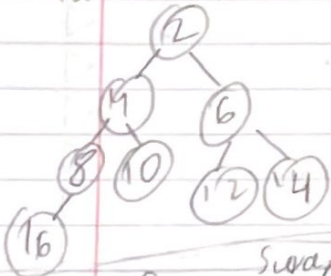
6 and 12 are swapped

heapify(0)

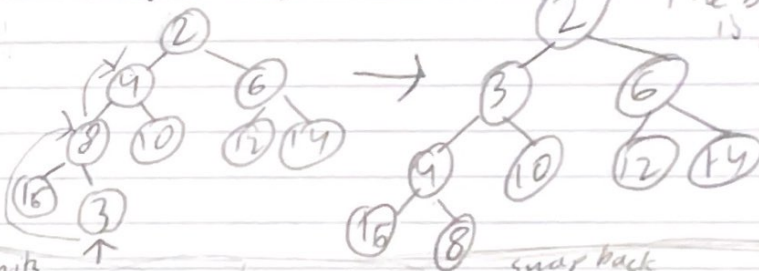


3 is swapped with 10, 10 then trickles down as there is a better child

4b. Initial

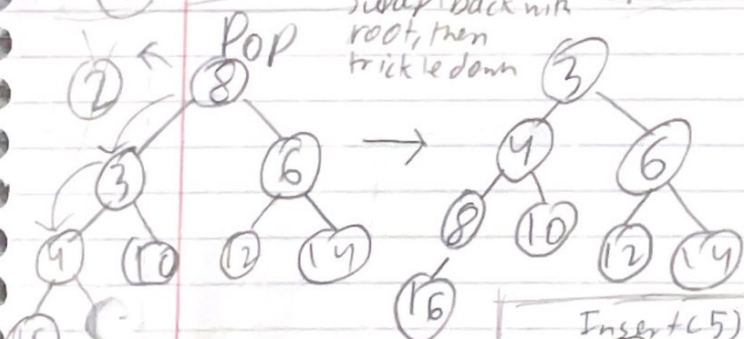


Insert(3)



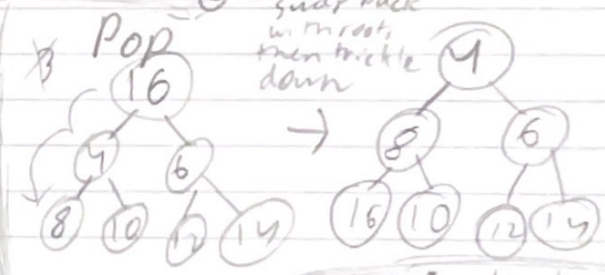
3 is put in the back, then is promoted

Pop



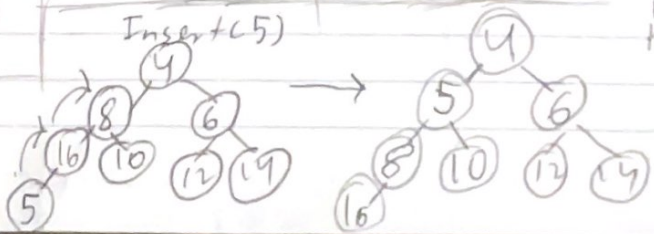
Swap back with root, then trickle down

Pop



swap back with root, then trickle down

Insert(5)



put 5 in the back then trickle up