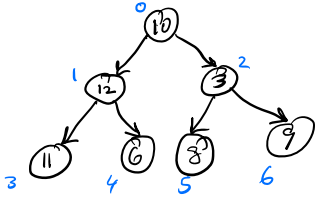


Part 4 - Heaps

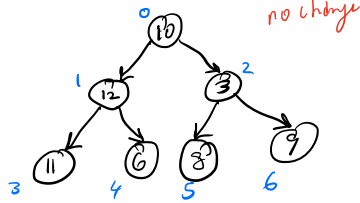
[10, 12, 3, 11, 6, 8, 9]

a) 0th iteration:

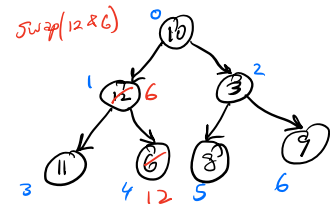


* Optimization: start @ non-leaf node

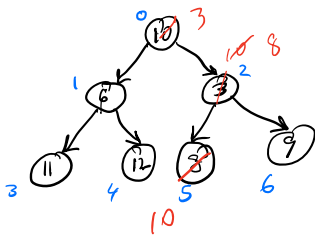
1st iteration: heapify(2)



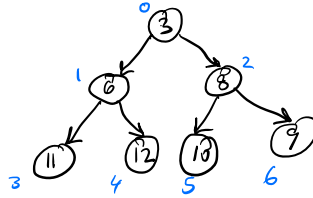
2nd iteration: heapify(1)



3rd iteration: heapify(0)

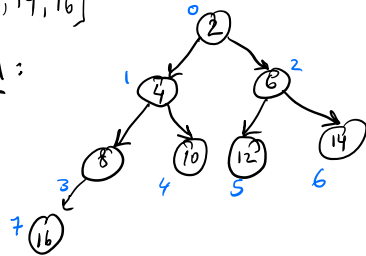


Final

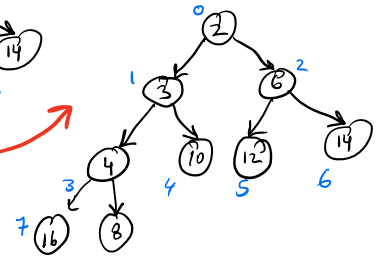
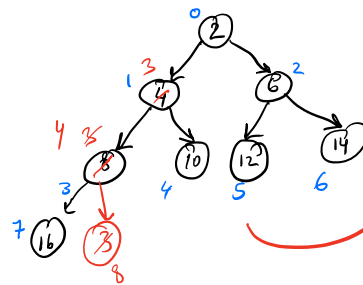


b) [2, 4, 6, 8, 10, 12, 14, 16]

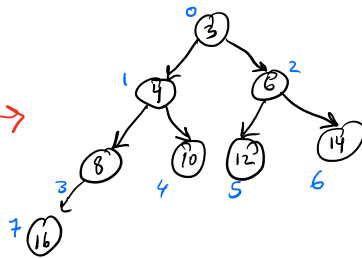
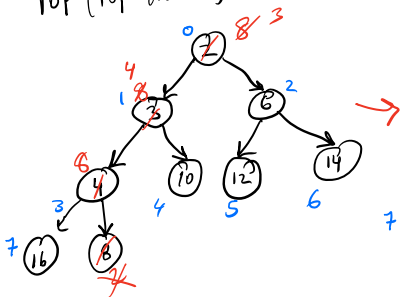
Initial:



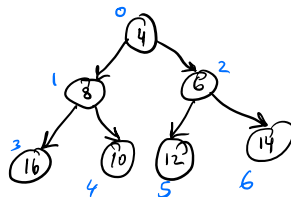
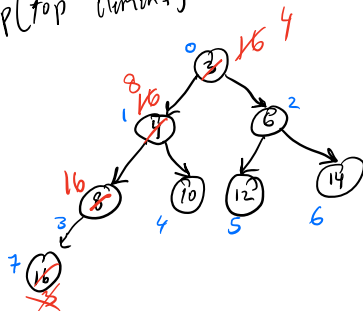
Insert 3:



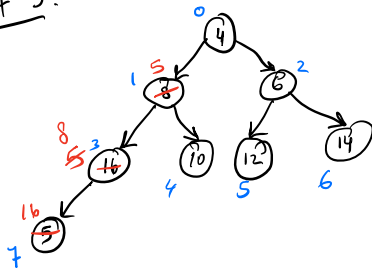
Pop (top element):



Pop (top element):



Insert 5:



FINAL

