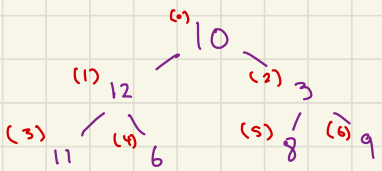
Part 4 a)

creating a min-heap

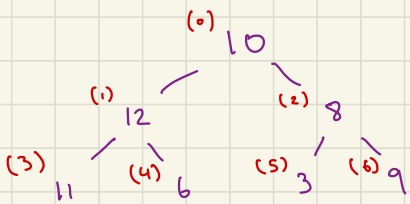
0	1	2	3	4	5	6
10	12	3	11	6	8	9

initial tree (w/ indexes)

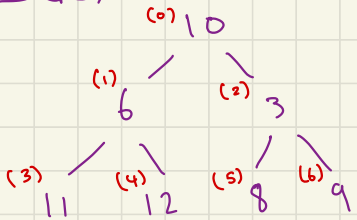


(3 is last non-leaf node index)

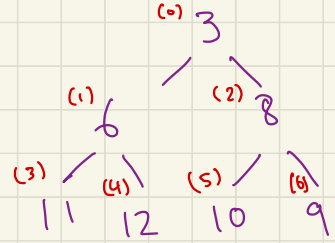
heapify (2) → swap with smaller child (no changes here)



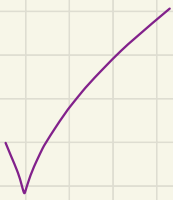
heapify (1) (swap 12 & 6)



heapify (0) (swap 3, 10 then 10, 8)

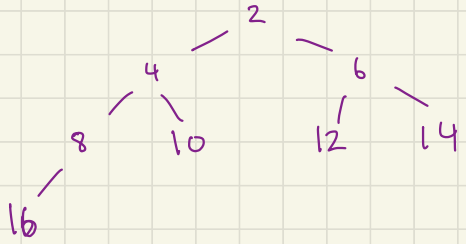


heap property satisfied!

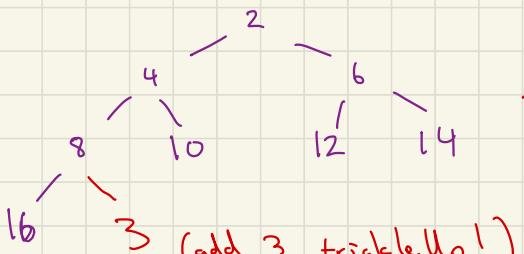


Part 4b) (Another min-heap)

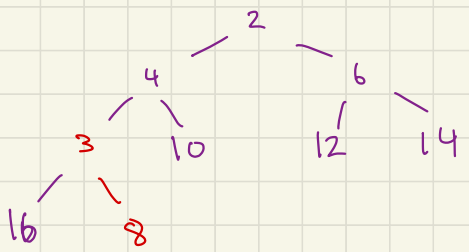
Initial Configuration: [2, 4, 6, 8, 10, 12, 14, 16]



Insert (3)
aka push(3)



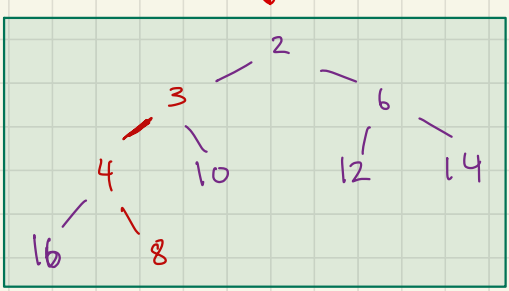
(add 3, trickle up!)



DONE!

2 < 3

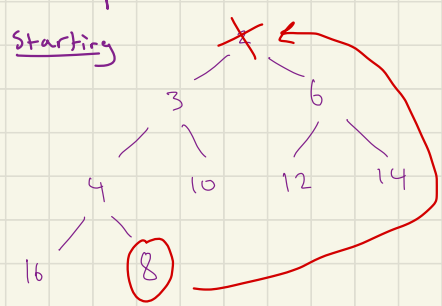
Final Answer →

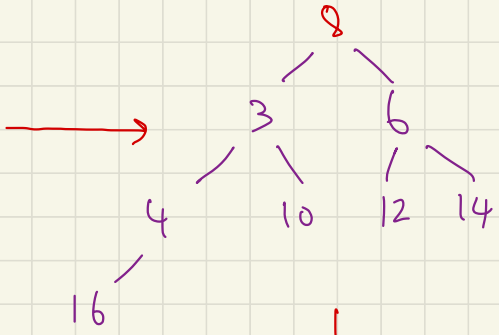


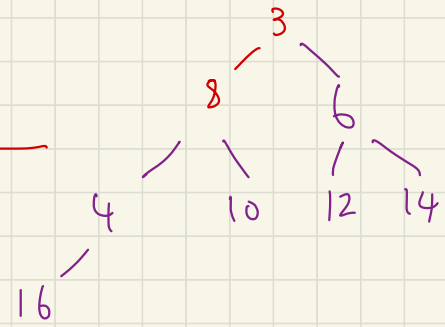
Continued!

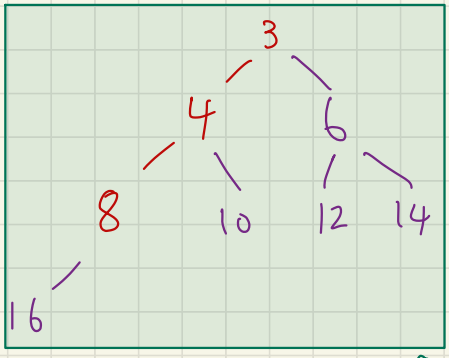
Pop Top element

Starting









DONE!

8 < 16

Final Answer

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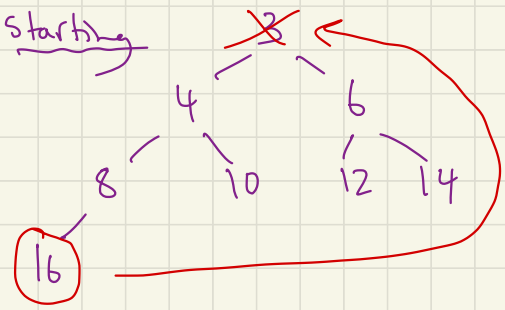
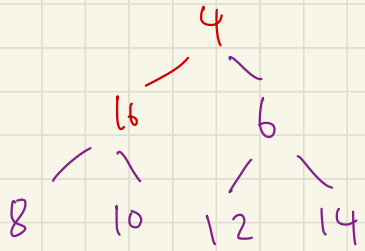
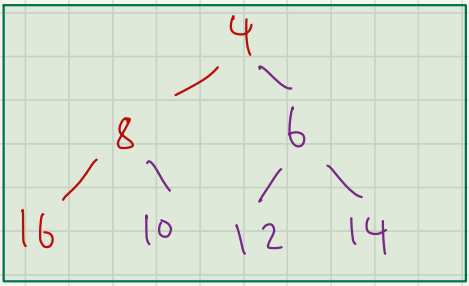
continued

Pop Top Element





DONE!
went all the way down



Final Answer

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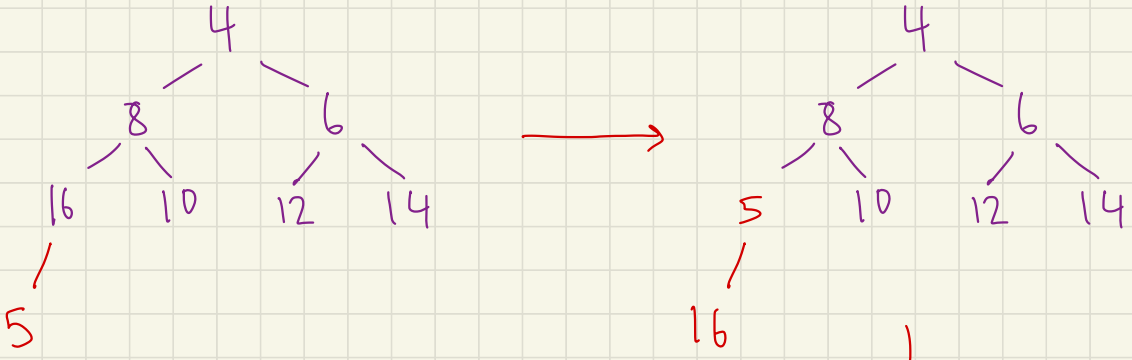
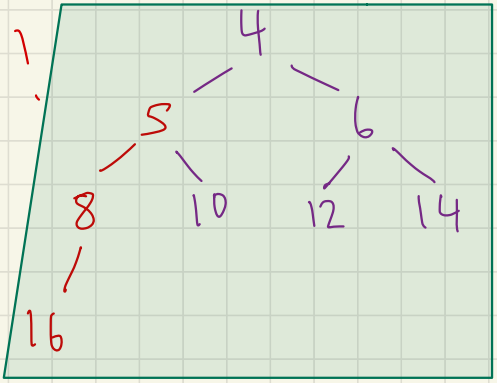
last part!

Insert (5)
aka push (5)

starting



DONE!
4 < 5



Final Answer!

ALL DONE