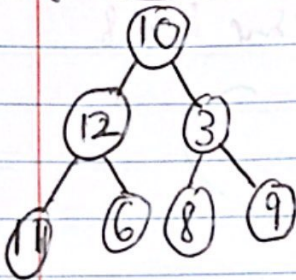


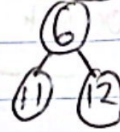
Part 4

(a) initial



using min-heap

heapify(2)



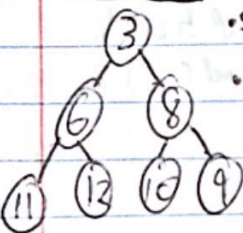
• Swap 12 and 6

heapify(1)



• No action needed

heapify(0)

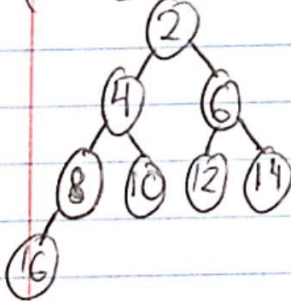


• Swap 10 and 3

• Swap 10 and 8

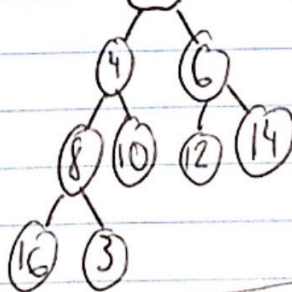
Satisfies min heap ✓

(b) initial

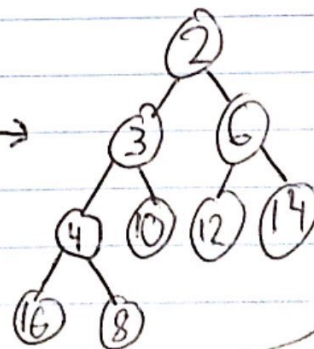


insert(3)

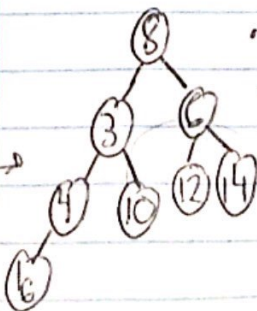
add(3)



• Swap 3 and 8
• Swap 4 and 3

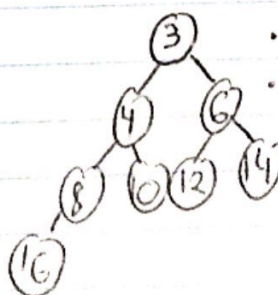


Pop()



• Root = last

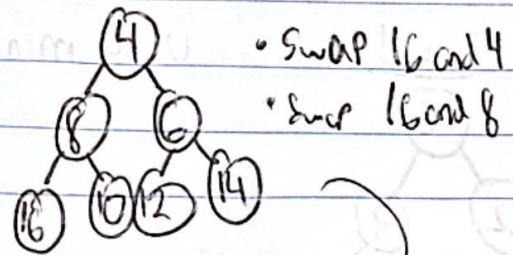
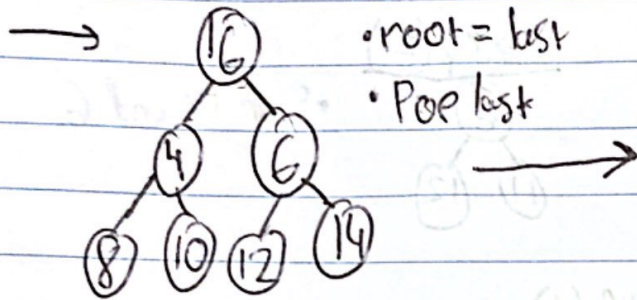
• Pop last



• Swap 8 and 3

• Swap 8 and 4

pop()



insert(5)

