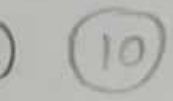
# CS 340 - Assignment 3

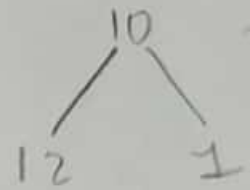
20041525

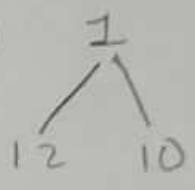
## Q-1

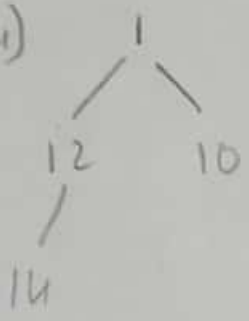
(a) minHeap application

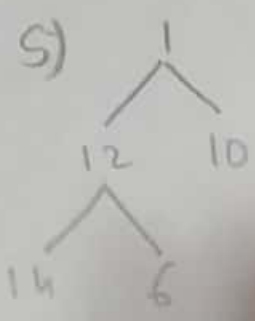
Step I) 

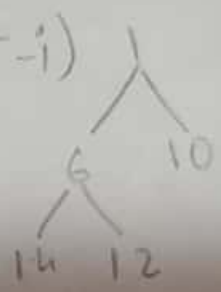

2)

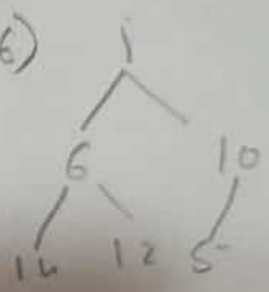

3) 

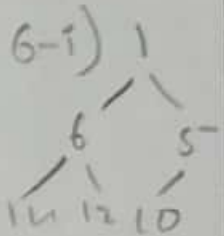

3-i) 

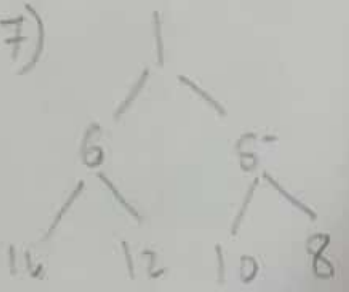

4) 

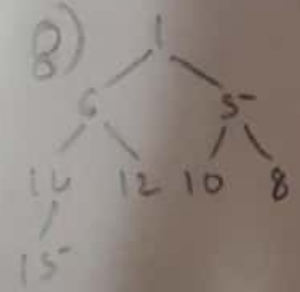

5) 

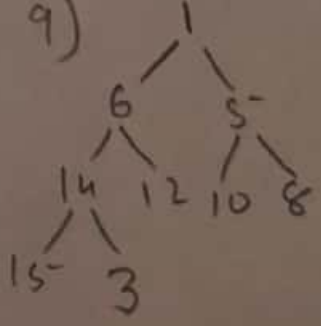

5-i) 

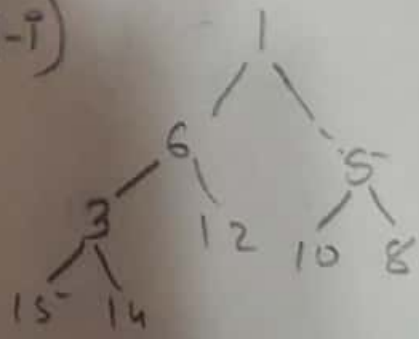

6) 

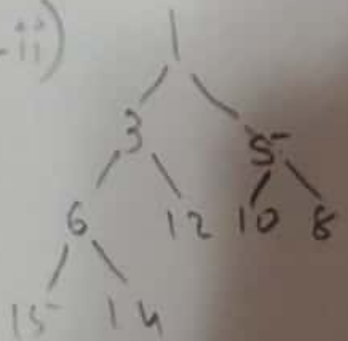

6-i) 

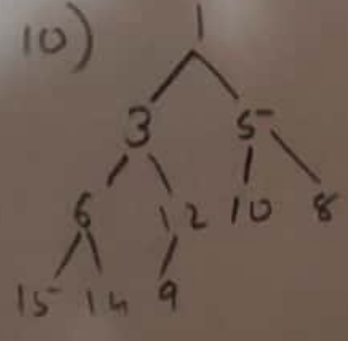

7) 

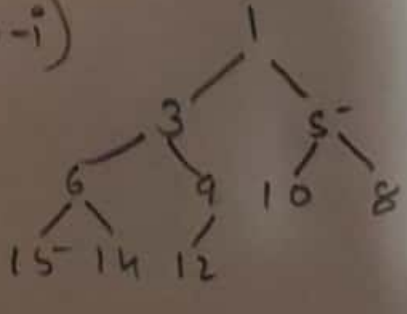

8) 


9) 


9-i) 


9-ii) 


10) 


10-i) 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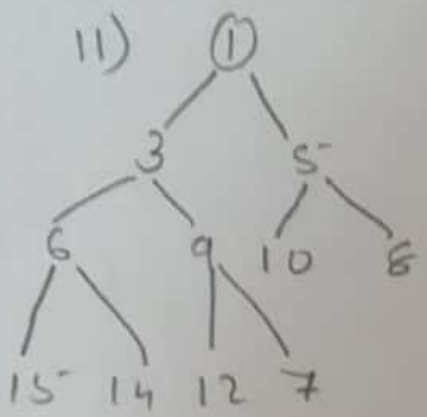
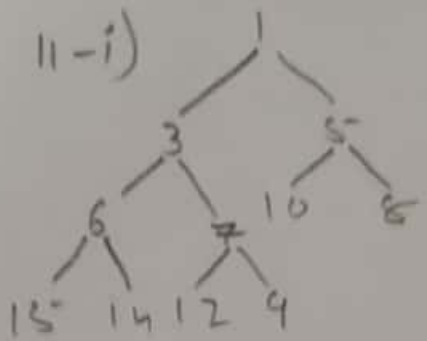
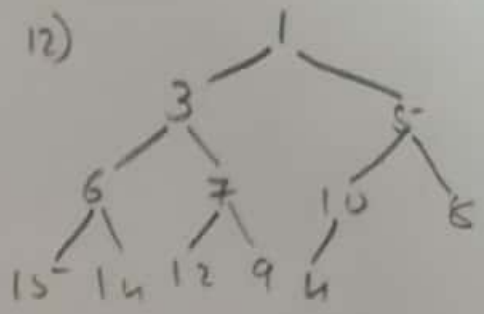
11)



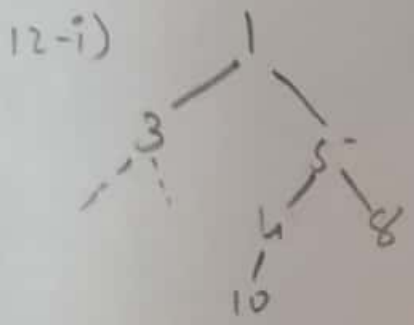

11-i)



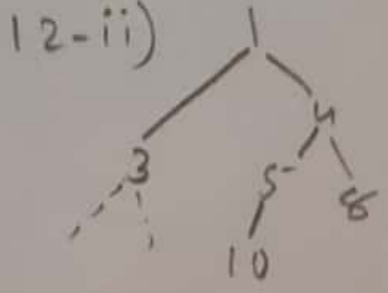

12)




12-i)




12-ii)

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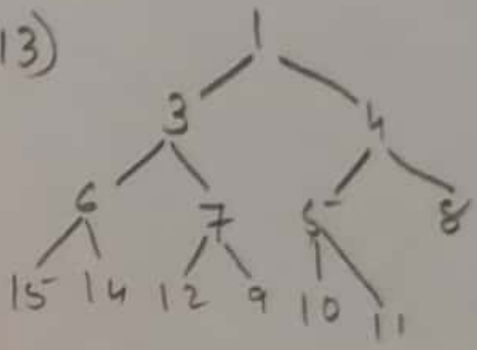


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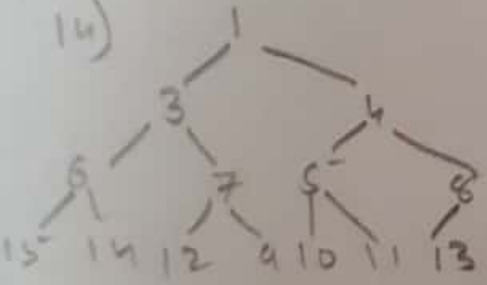


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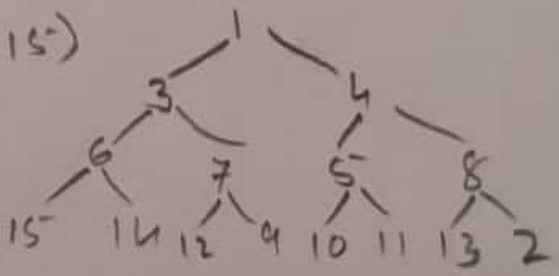
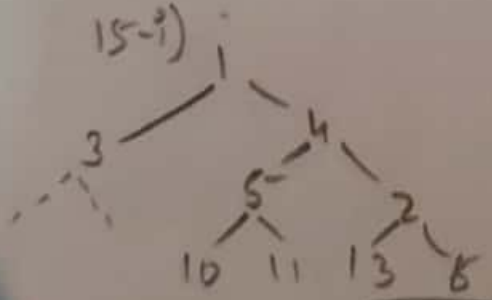



15-i)

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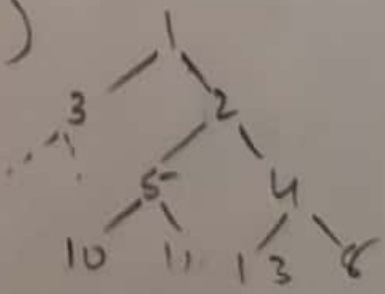
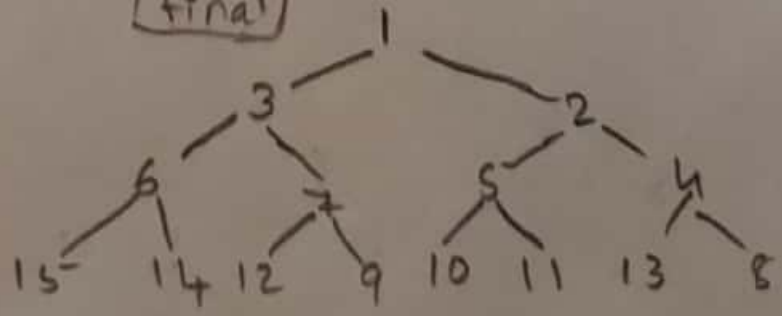



Final

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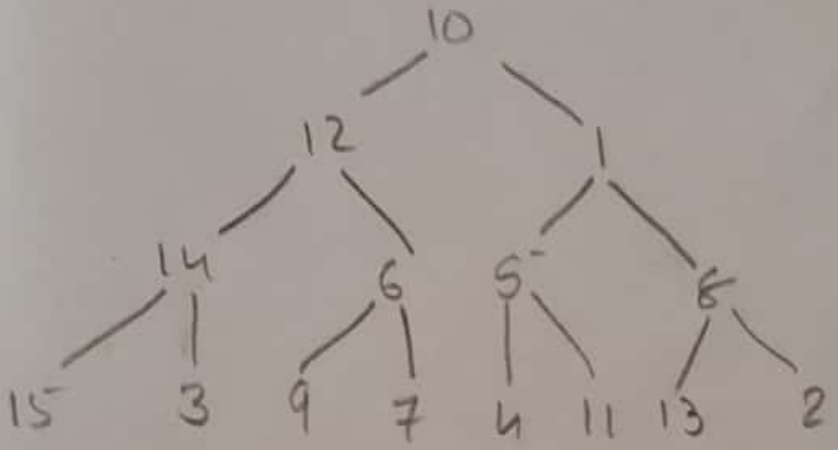
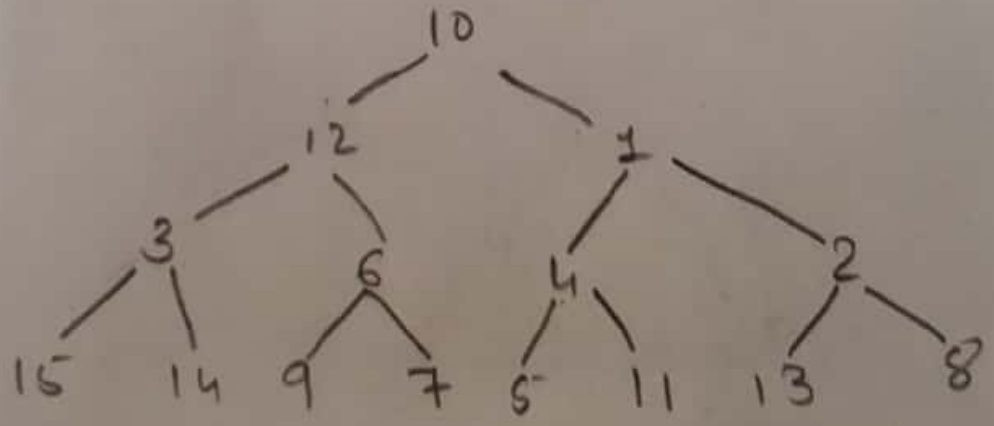
# Q:1 - B

The first procedure for linear time algorithm will be inserting each element as they appear from left to right. The final result will be like;




Now checking each node with their parent if they are the right position, starting from last layer. After completing this procedure in last layer the result will be;

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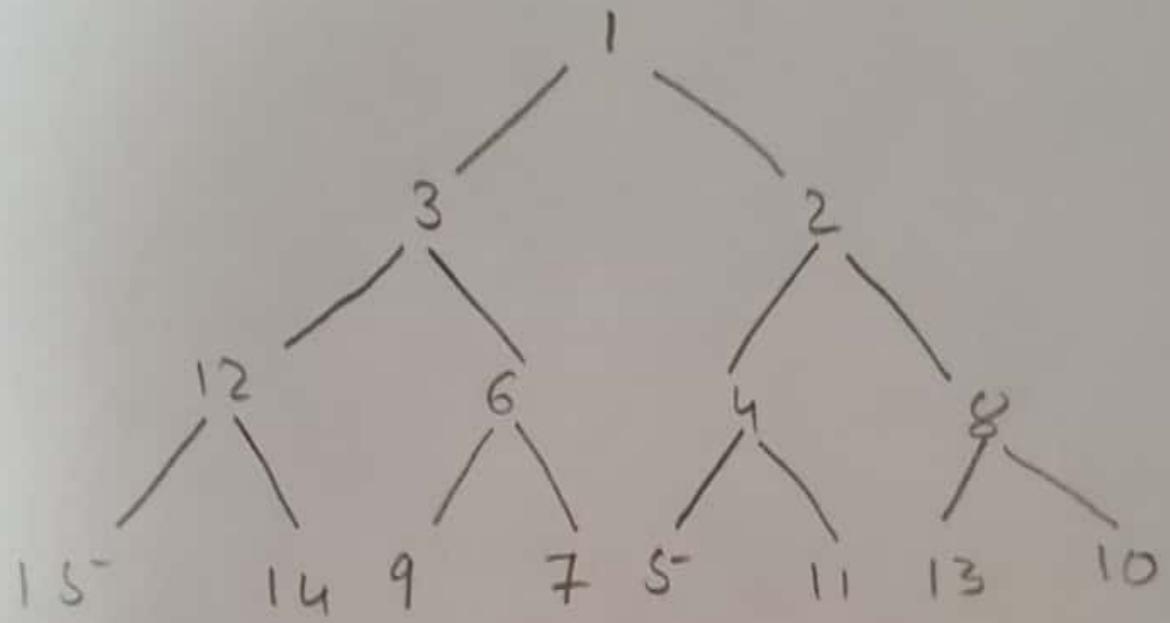
By performing same procedure for all the layers we will get the final heap as;

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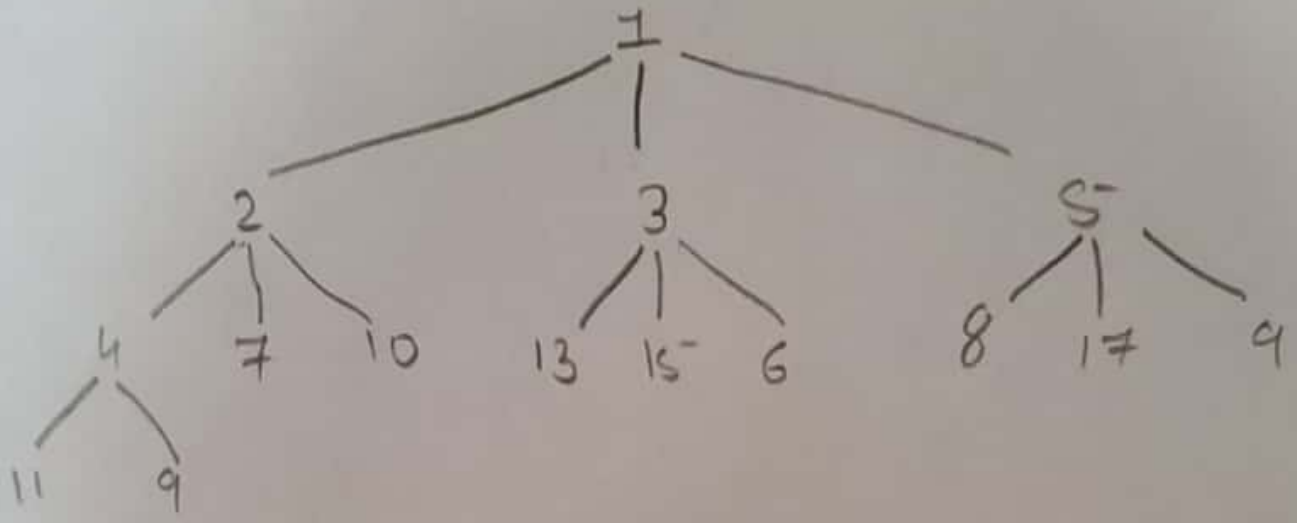
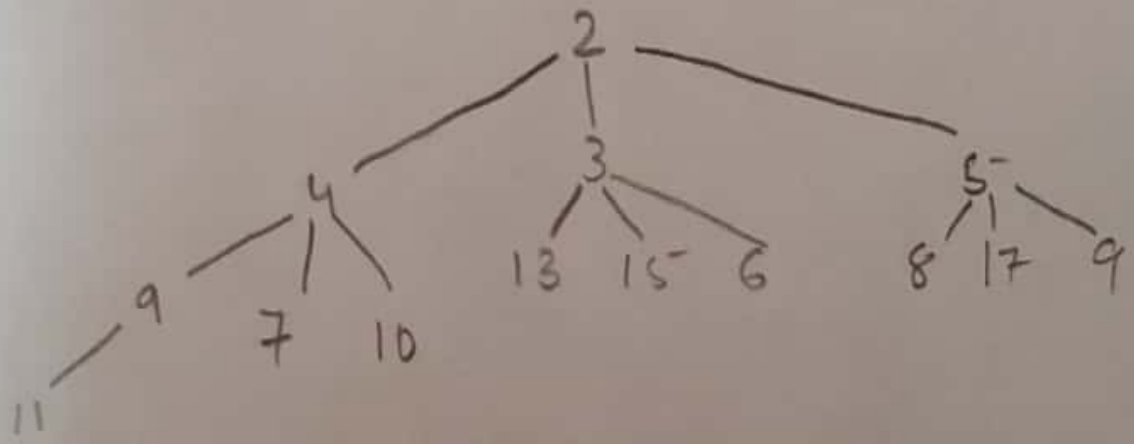
Q: 1- C

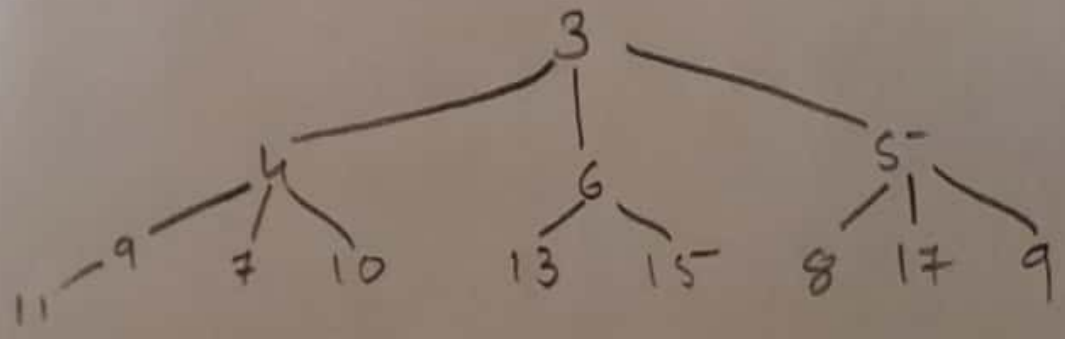
Initial State




First deleteMins




Second deleteMins

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