

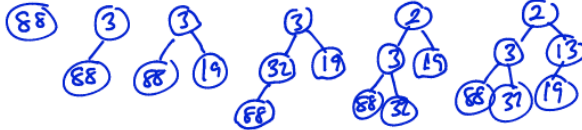
CS 300 Data Structures
Problem Set # 18 – Binary Heap

1. Draw the binary min heap that results from inserting: 88, 3, 19, 32, 2, 13 in that order into an initially empty binary min heap.

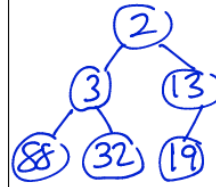
a. Show the final array and tree representation of the heap.

Show array representation:

0	1	2	3	4	5	6
	2	3	13	88	32	19



Draw Tree here:

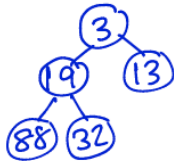


- b. Show the final array and tree representation of the heap that results from performing **two deletions** on the heap created in part (a).

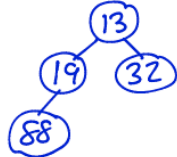
Show array representation:

0	1	2	3	4	5	6
	13	19	32	88		

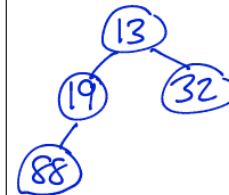
1st deletion



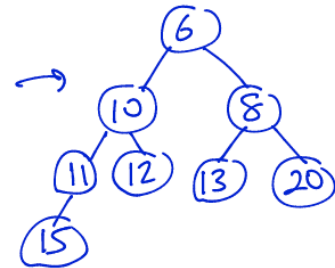
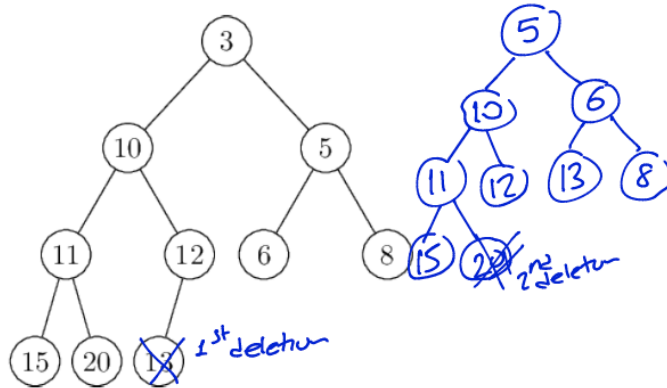
2nd deletion



Draw Tree here:



2. Consider the following min heap. Show the final array and tree representation of the heap that results from performing **two deletions** on the heap.



	6	10	8	11	12	13	20	15			
0	1	2	3	4	5	6	7	8	9	10	11