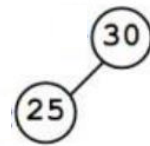
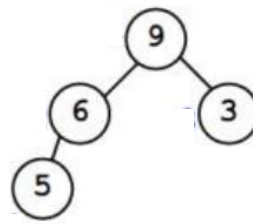
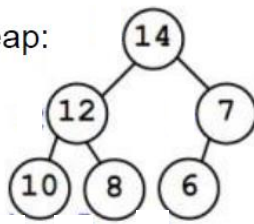


Q1) how max and min heap(binary) elements are stored in corresponding arrays?

Max Heap:

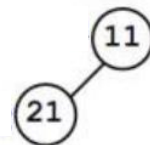
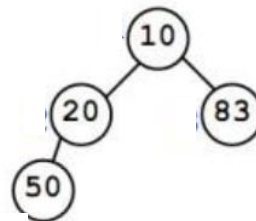
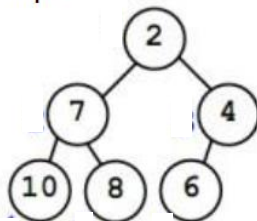


	14 (1)	12	7	10	8	6
--	--------	----	---	----	---	---

	9	6	3	5
--	---	---	---	---

	30	25
--	----	----

Min Heap:



	2	7	4	10	8	6
--	---	---	---	----	---	---

	10	20	83	50
--	----	----	----	----

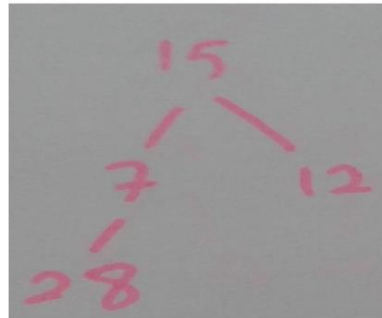
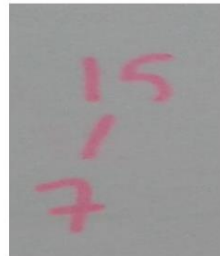
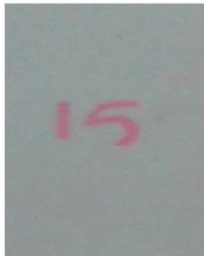
	11	21
--	----	----

Q2)

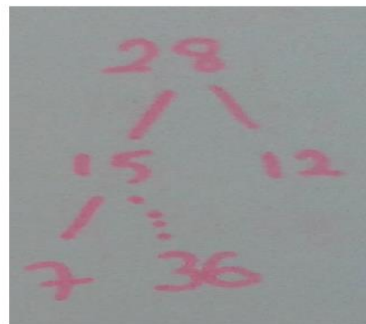
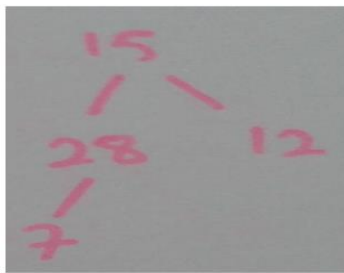
15, 7, 12, 28, 36, 1, 37, 13, 4, 25, 3, 9, 27, 2, 5, 16

Construct binary max-heap

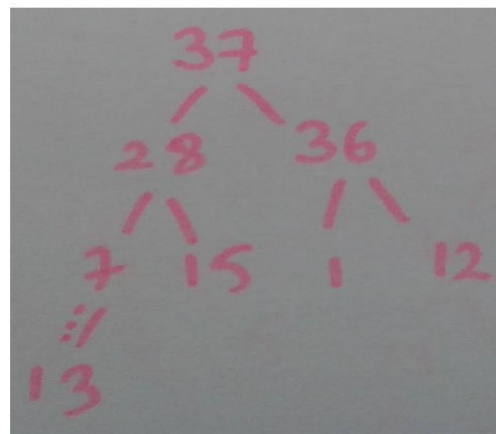
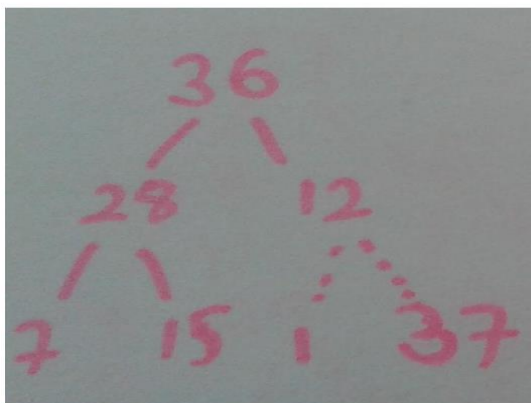
~~15, 7, 12, 28, 36, 1, 37, 13, 4, 25, 3, 9, 27, 2, 5, 16~~



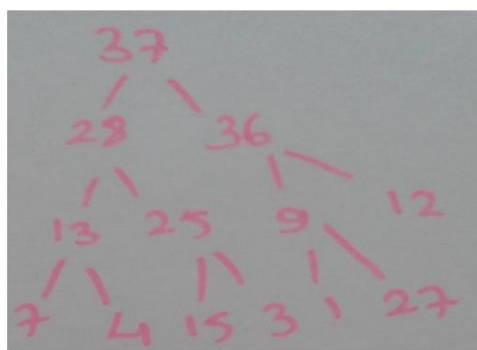
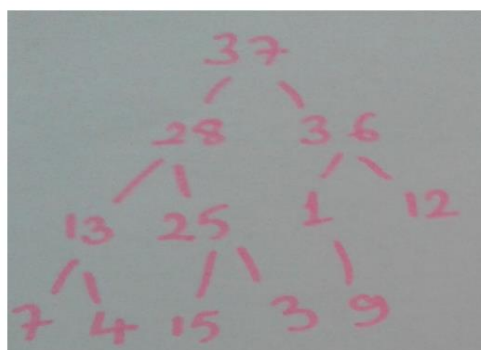
~~15, 7, 12, 28, 36, 1, 37, 13, 4, 25, 3, 9, 27, 2, 5, 16~~



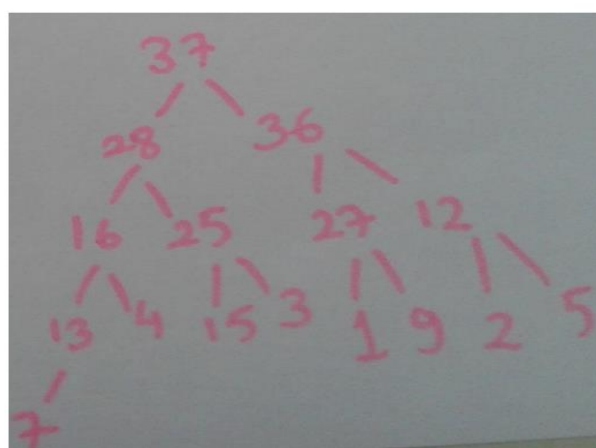
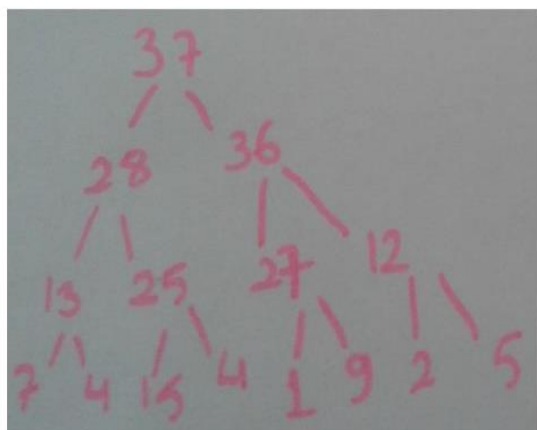
~~15, 7, 12, 28, 36, 1, 37, 13, 4, 25, 3, 9, 27, 2, 5, 16~~



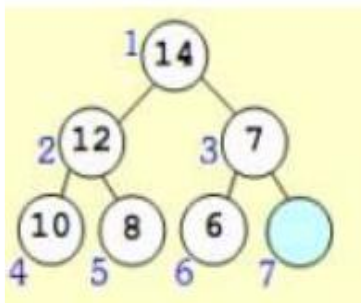
~~15,7,12,28,36,1,37,13,4,25,3,9,27,2,5,16~~



~~15,7,12,28,36,1,37,13,4,25,3,9,27,2,5,16~~

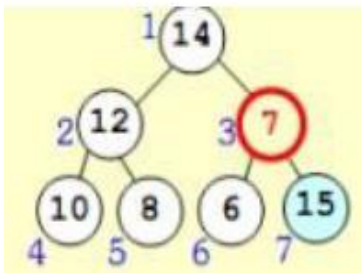


Q3) insert 15 to max heap



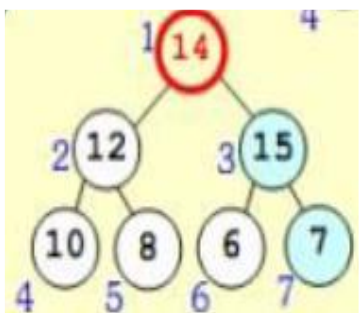
Initial array

	14	12	7	10	8	6			
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0	1	2	3	4	5	6	7
	14	12	7	10	8	6	

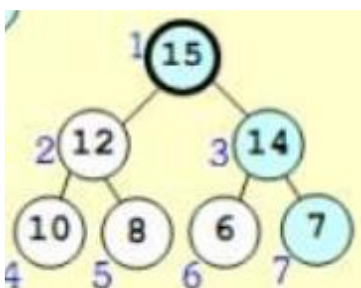
0	1	2	3	4	5	6	7
	14	12	7	10	8	6	15



0	1	2	3	4	5	6	7
	14	12	7	10	8	6	

0	1	2	3	4	5	6	7
	14	12	7	10	8	6	15

0	1	2	3	4	5	6	7
	14	12	15	10	8	6	7



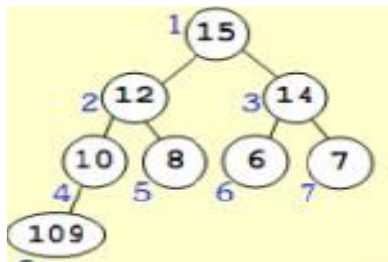
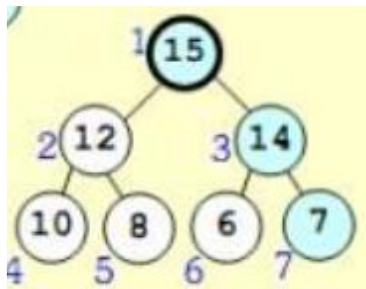
0	1	2	3	4	5	6	7
	14	12	7	10	8	6	

0	1	2	3	4	5	6	7
	14	12	7	10	8	6	15

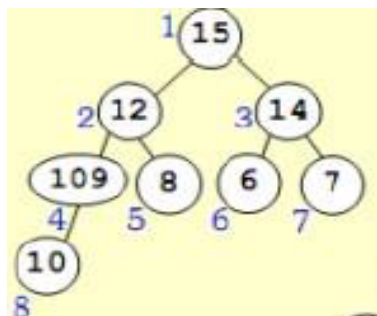
0	1	2	3	4	5	6	7
	14	12	15	10	8	6	7

0	1	2	3	4	5	6	7
	15	12	14	10	8	6	7

Q4) insert 109

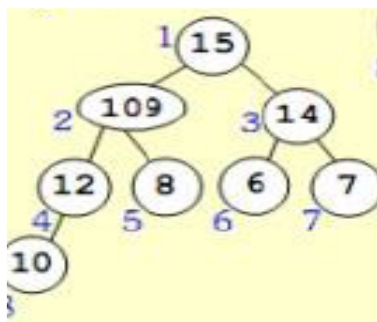


0	1	2	3	4	5	6	7	8
	15	12	14	10	8	6	7	109



0	1	2	3	4	5	6	7	8
	15	12	14	10	8	6	7	109

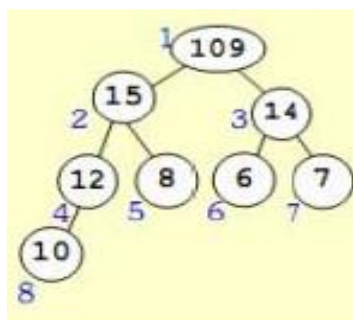
0	1	2	3	4	5	6	7	8
	15	12	14	109	8	6	7	10



0	1	2	3	4	5	6	7	8
	15	12	14	10	8	6	7	109

0	1	2	3	4	5	6	7	8
	15	12	14	109	8	6	7	10

0	1	2	3	4	5	6	7	8
	15	109	14	12	8	6	7	10



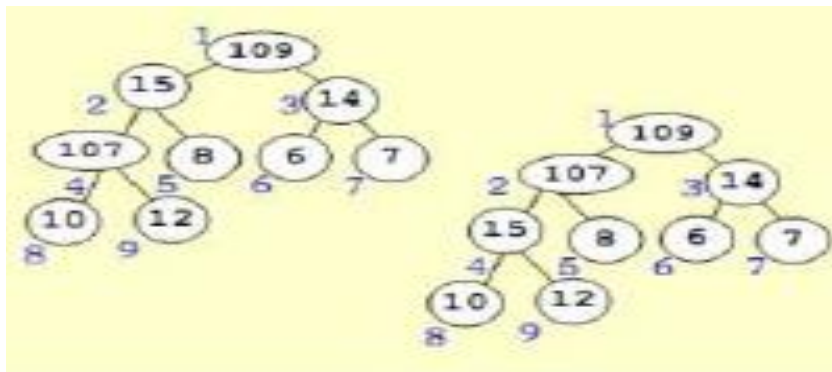
0	1	2	3	4	5	6	7	8
	15	12	14	10	8	6	7	109

0	1	2	3	4	5	6	7	8
	15	12	14	109	8	6	7	10

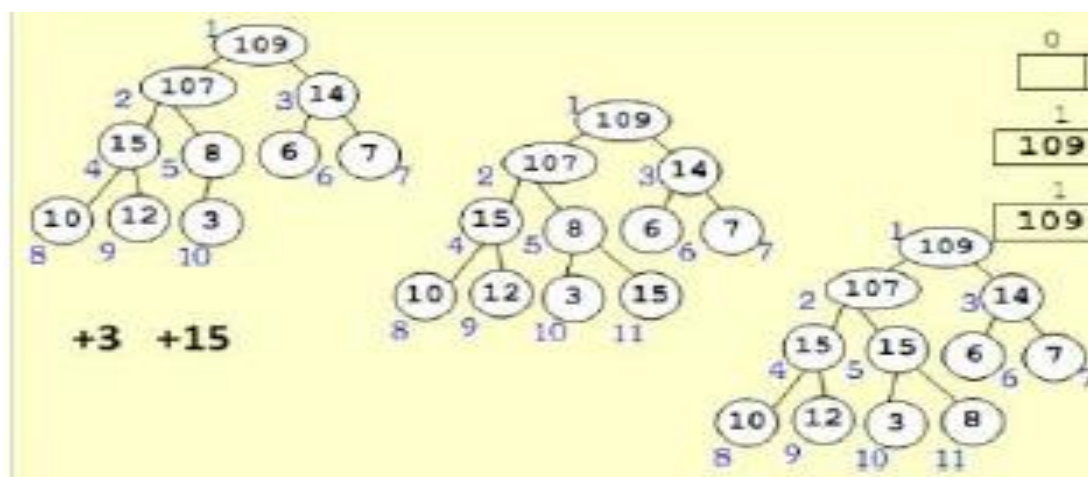
0	1	2	3	4	5	6	7	8
	15	109	14	12	8	6	7	10

0	1	2	3	4	5	6	7	8
	109	15	14	12	8	6	7	10

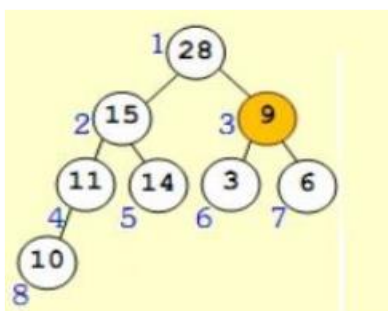
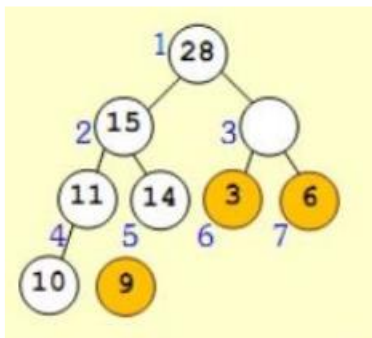
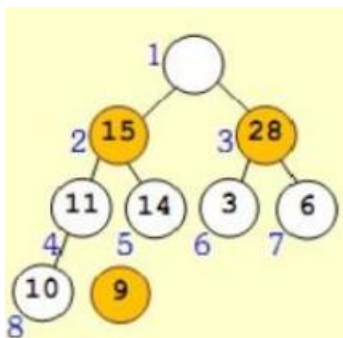
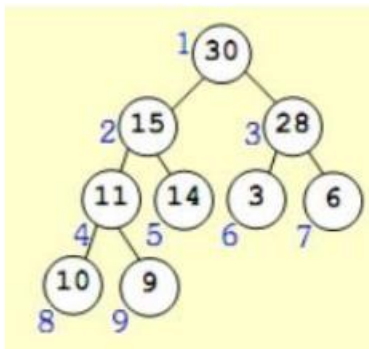
107



insert 3 and 15

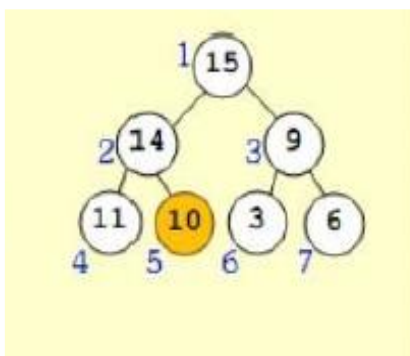
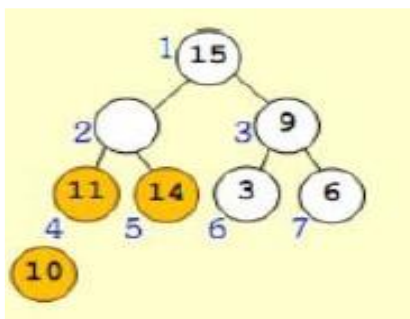
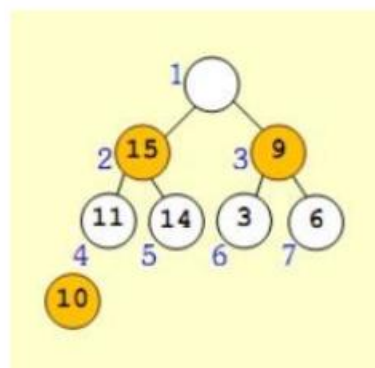
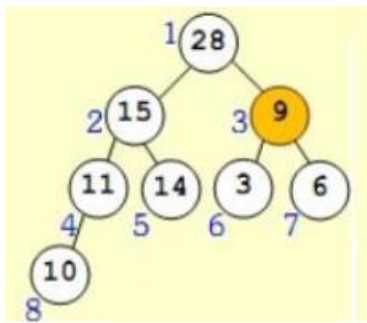


Q5) delete 30



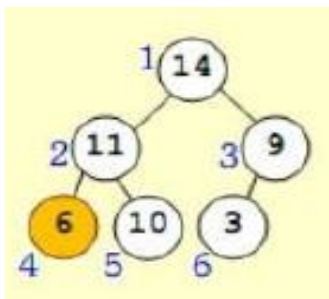
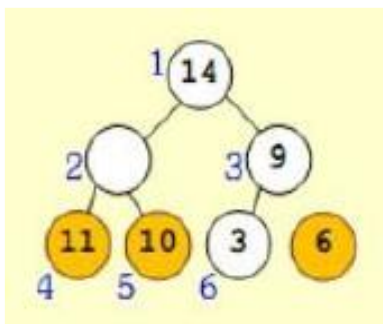
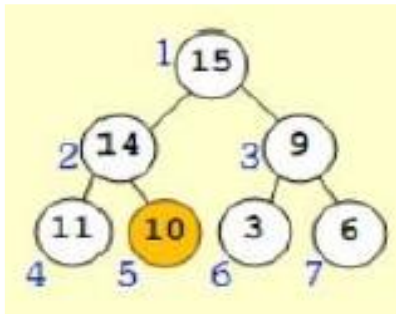
Q6)

delete 28



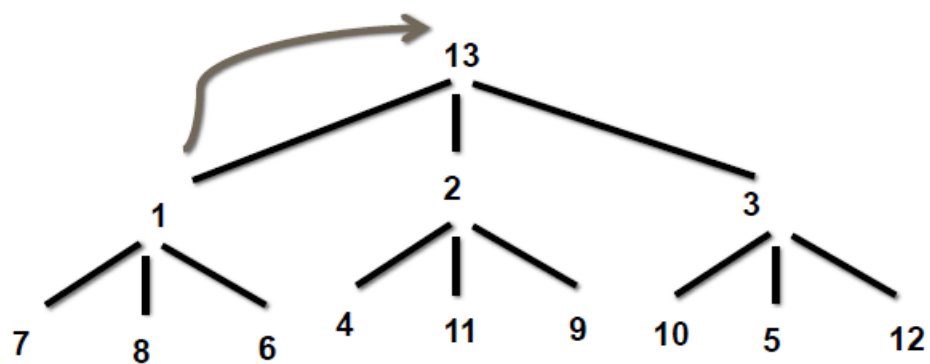
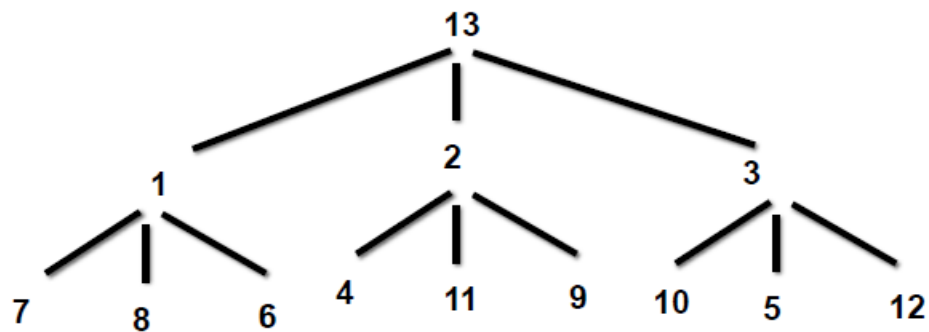
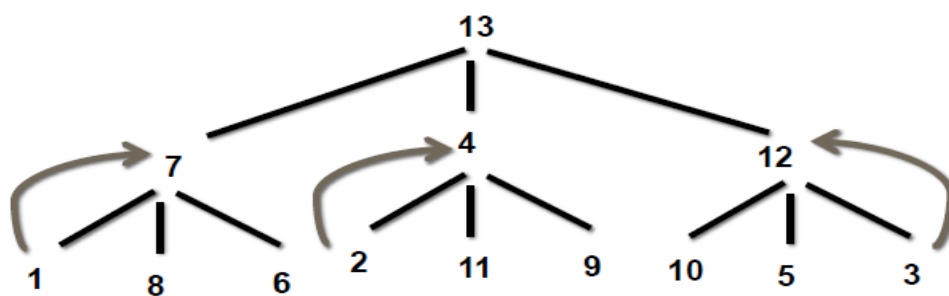
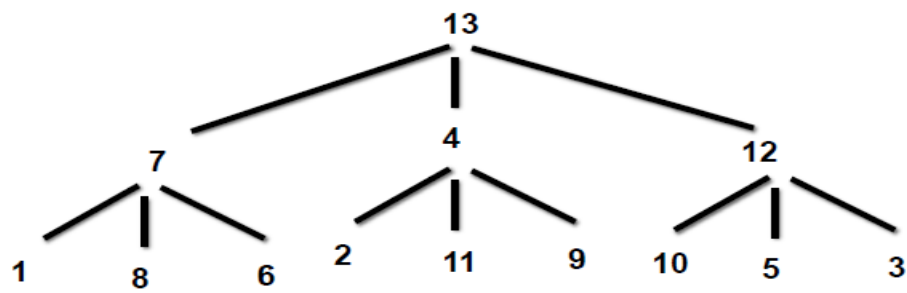
Q7)

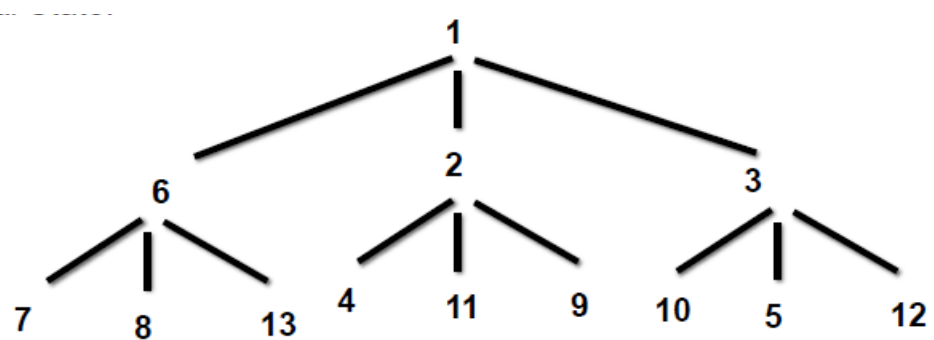
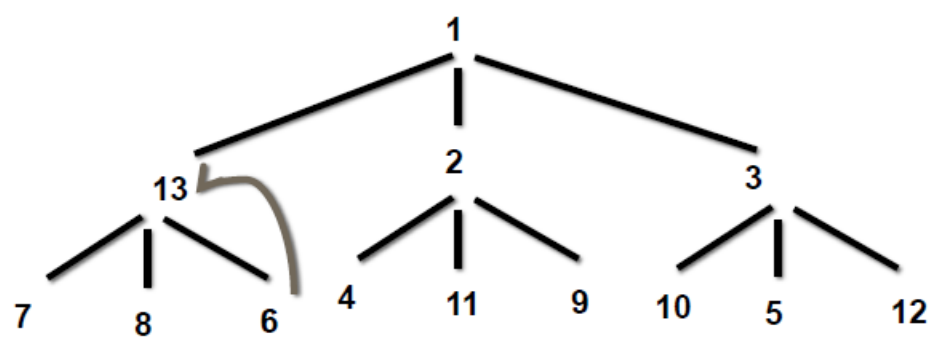
Delete 15



Q8)

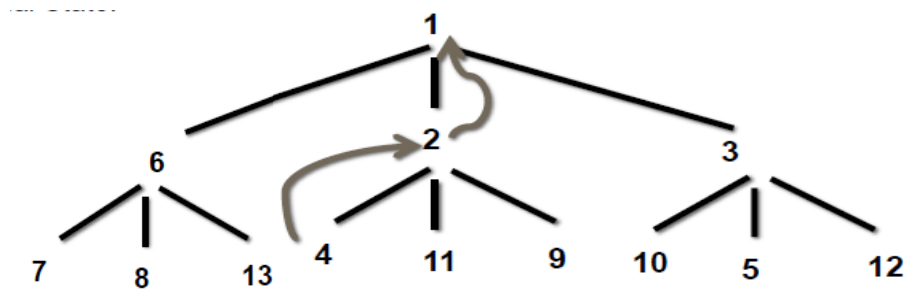
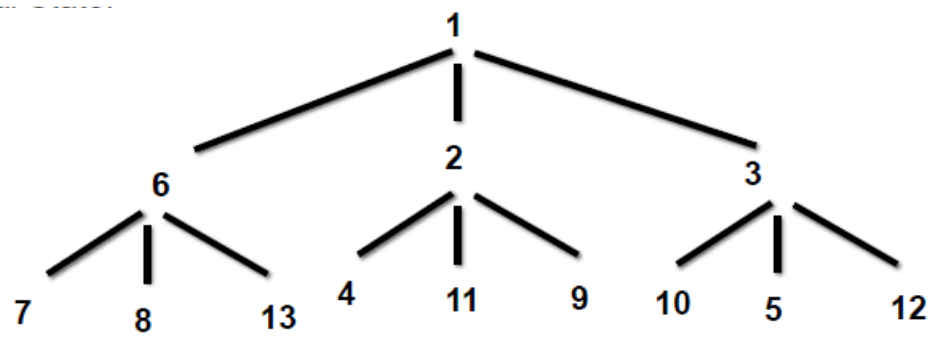
Build 3-heap min heap



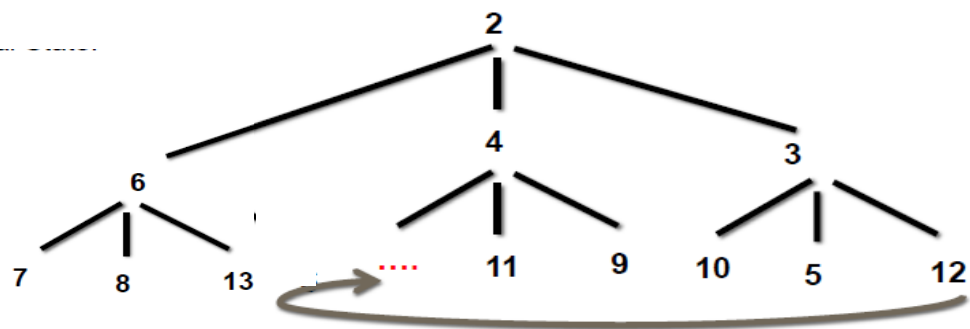


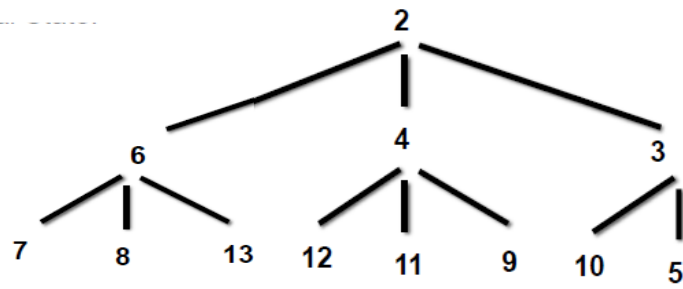
Q9)

Remove 1



Step





References :

http://firatyazilim.com/dosyalar/2.Sinif_1.Donem/Veri_Yapilari/7.Hafta_Btree.pdf

<http://www.codeproject.com/Articles/88674/Graph-coloring-using-Recursive-Large-First-RLF-alg>