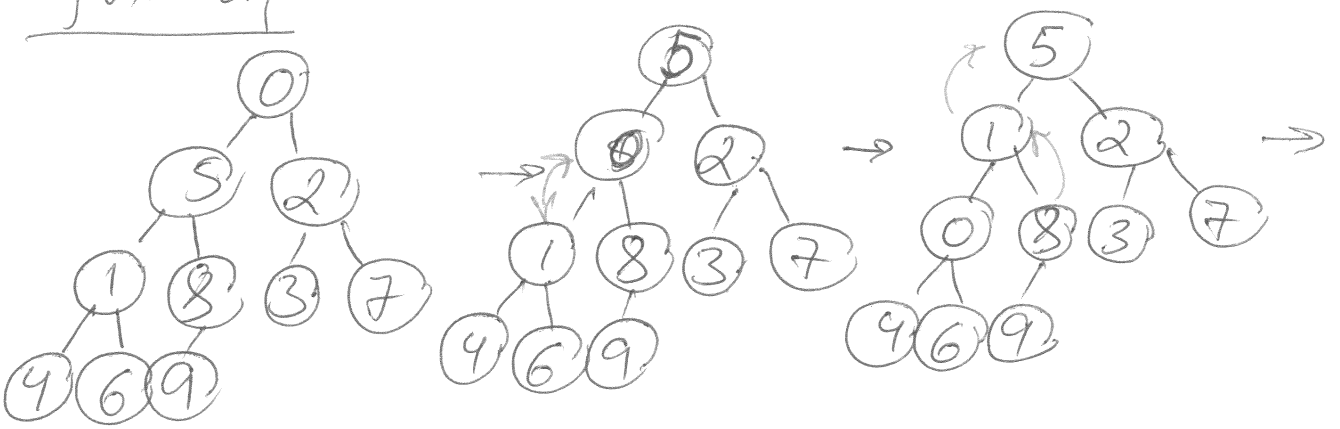
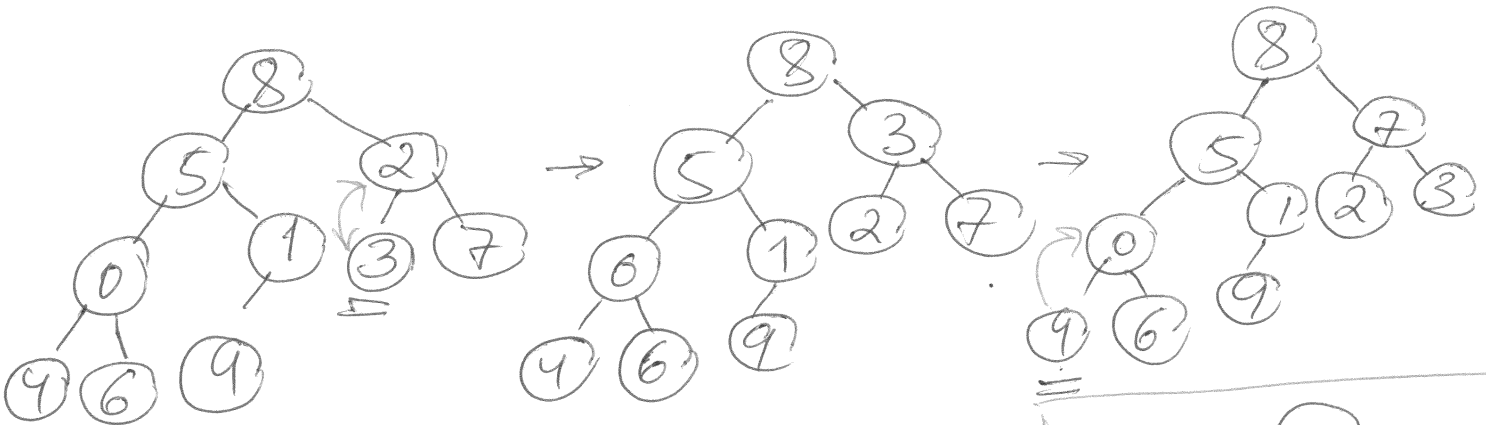
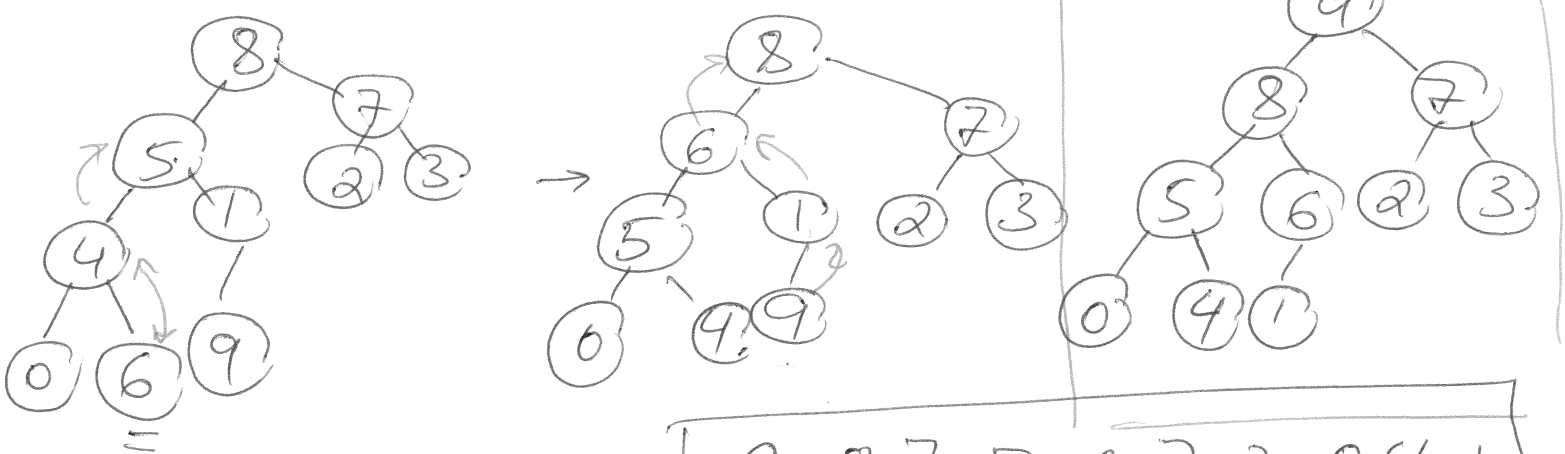
0, 5, 2, 1, 8, 3, 7, 4, 6, 9

fix-up.





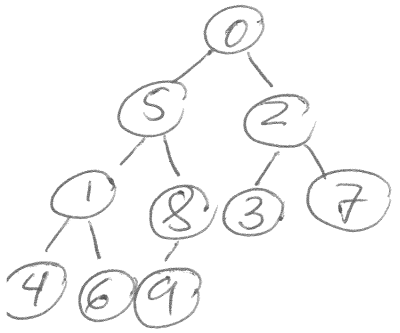


9, 8, 7, 5, 6, 2, 3, 0, 4, 1

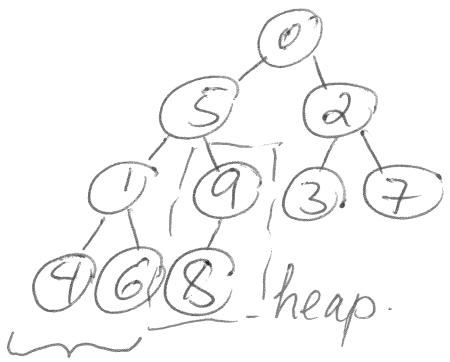
fix-down.

initial array

0	5	2	1	8	3	7	4	6	9



1) start with the last element, find a parent
parent is smaller → swap.



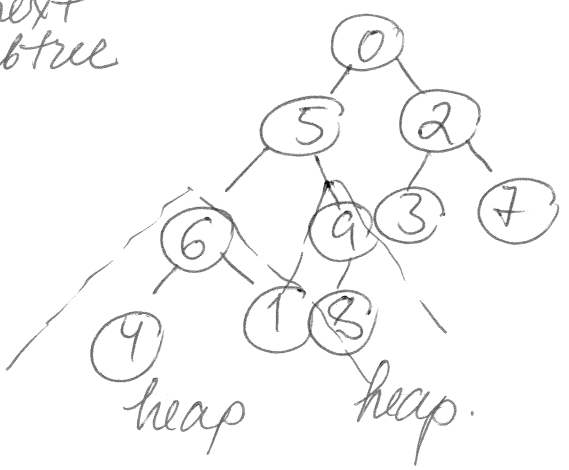
0	5	2	1	9	3	7	4	6	8

2) compare 4 & 6, swap 6 with 1.

heap.

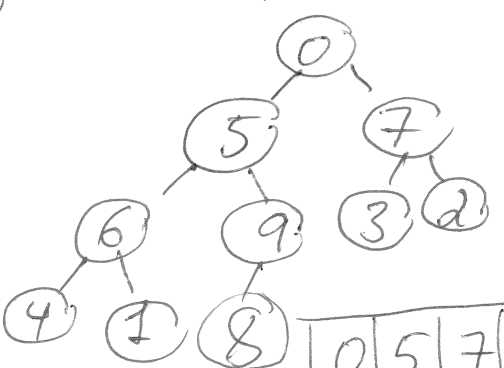
0	5	2	6	9	3	7	4	1	8

↑ next subtree



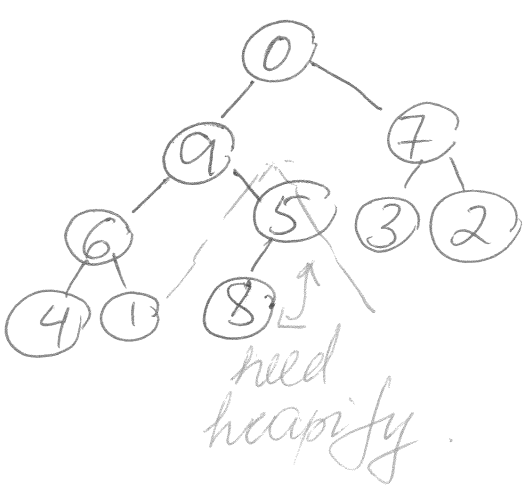
heap heap.

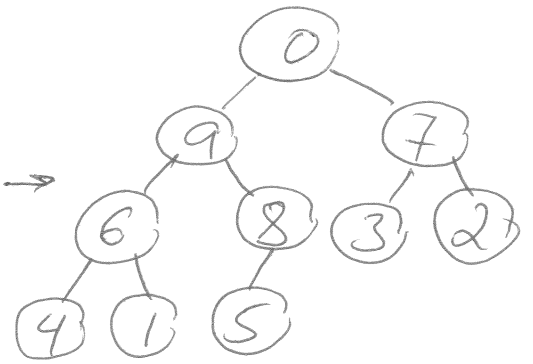
3) look at 3 & 7,
swap 7 with 2



0	5	7	6	9	3	2	4	1	8

④ 5 has 2 children: 6 & 9.
9 is largest, swap with 5.



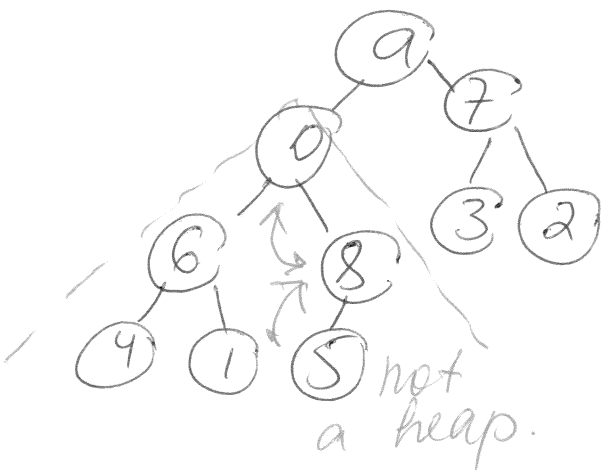


0	9	7	6	8	3	2	4	1	5

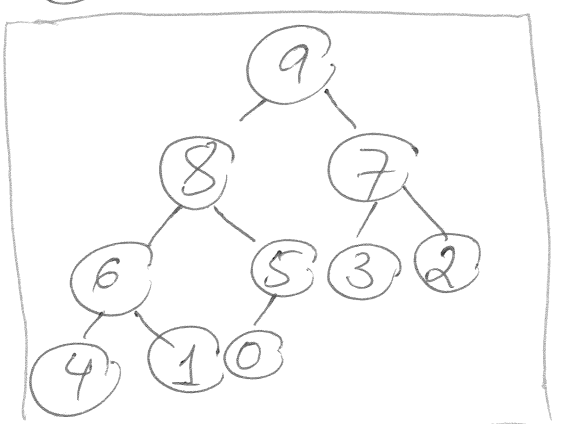
compare

⑤ Compare 9 & 7, swap 9 with 0.

9	0	7	6	8	3	2	4	1	5



⑥ Resulting tree



Resulting array

9	8	7	6	5	3	2	4	1	0