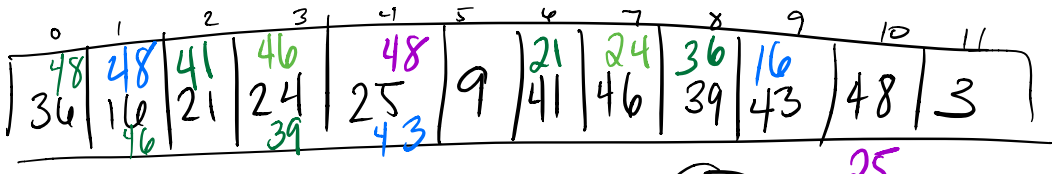
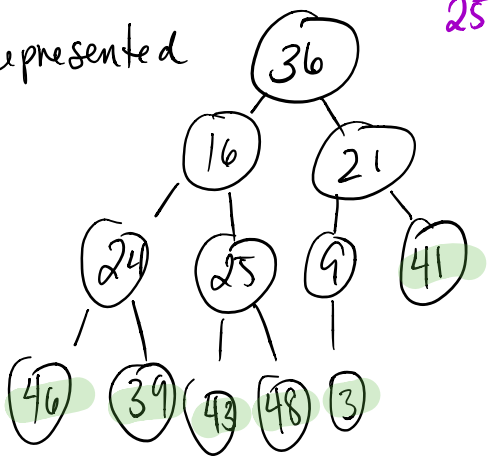
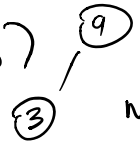


original array represented as binary tree

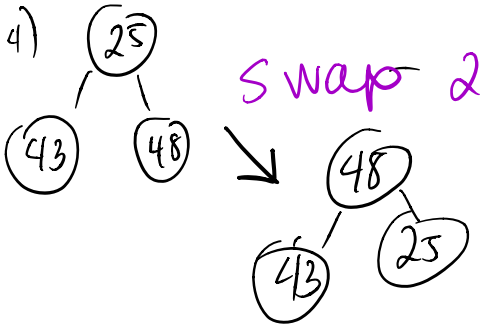


- assume leaf nodes are heaps
- heapify (5)



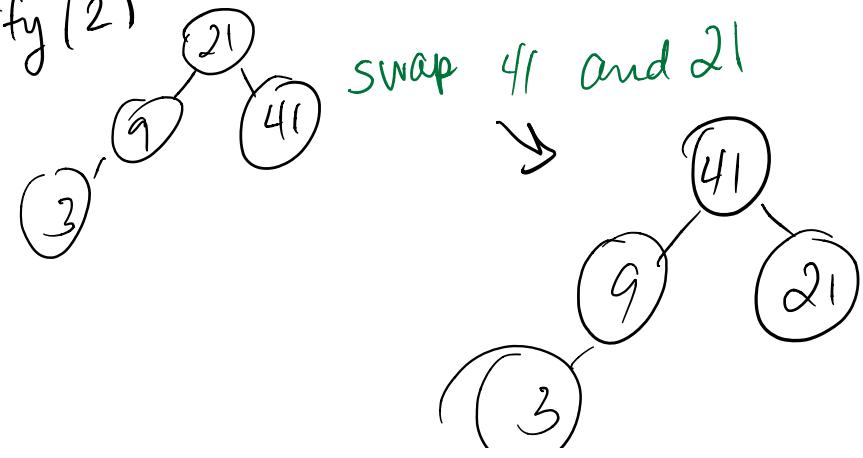
already valid max-heap

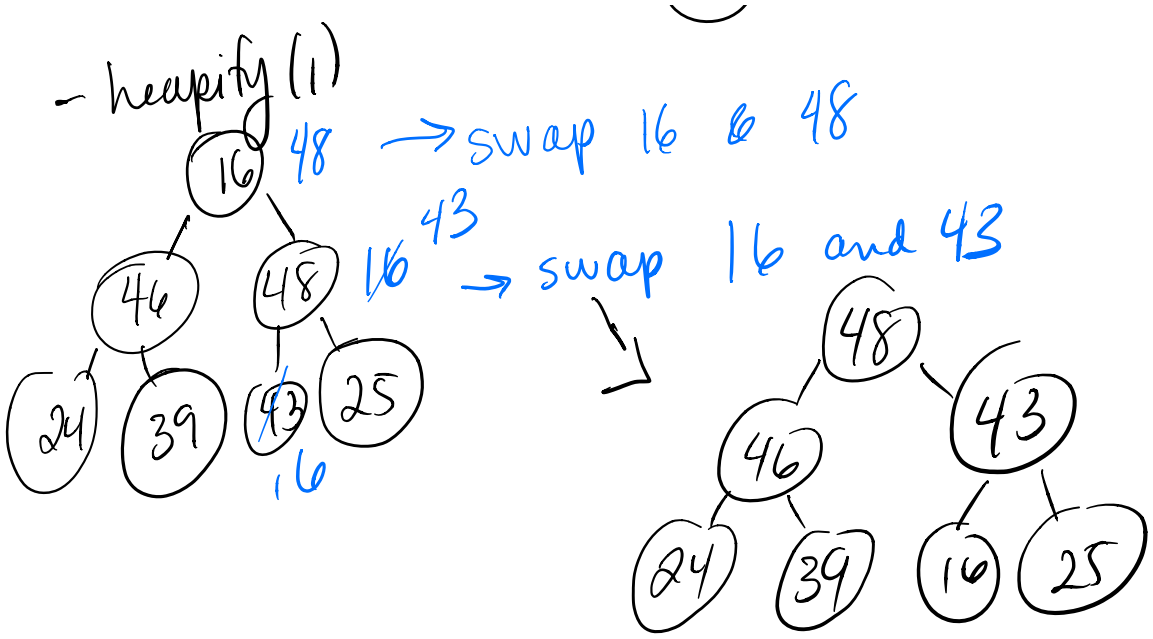
- heapify (4)

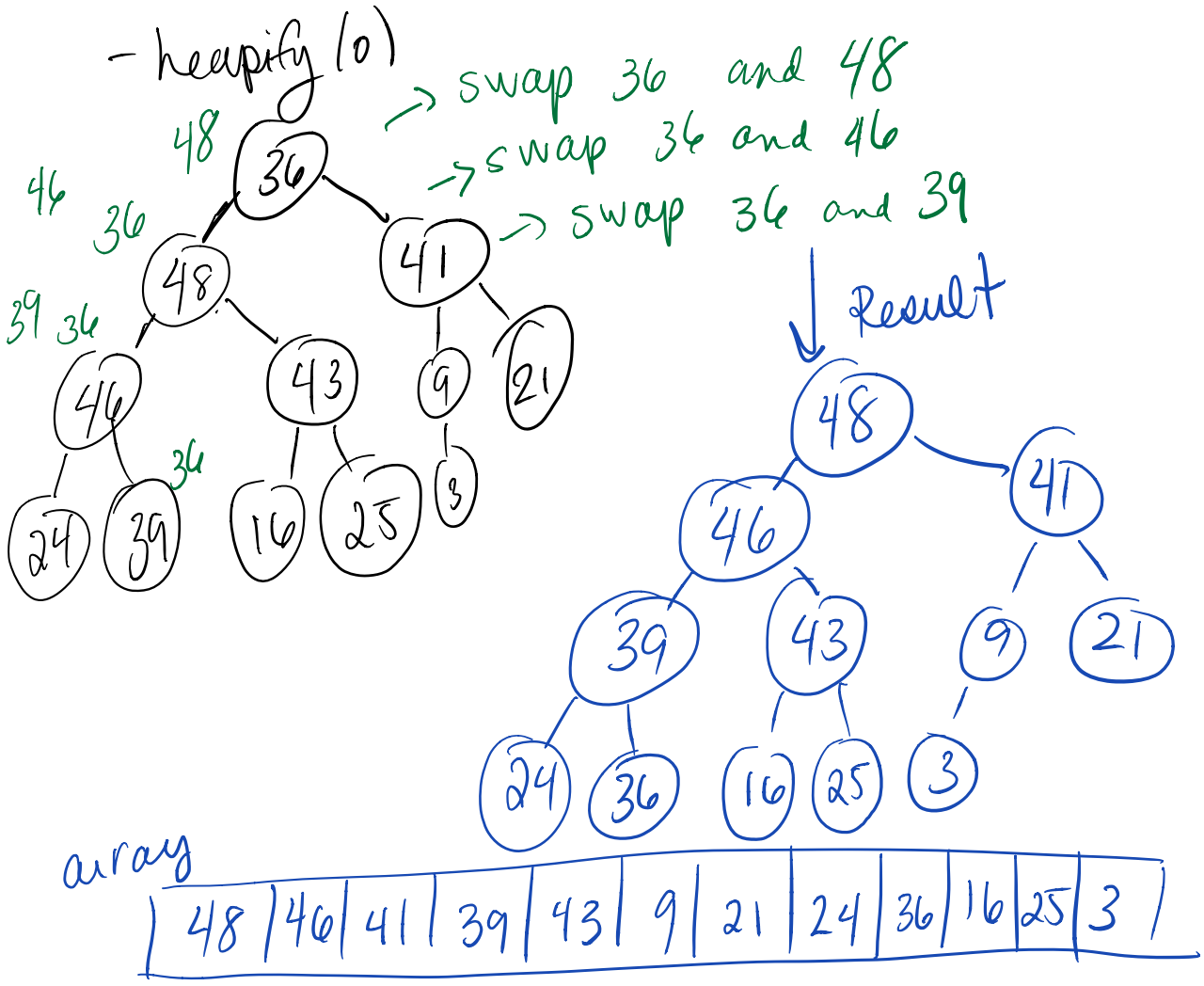


- heapify (3)

- heapify (2)




- heapify (1)
16
48
46
48
24
39
43
25
48 → swap 16 & 48
16
43
16
→ swap 16 and 43
48
46
43
24
39
16
25


- heapify (0)
48
36
46
36
48
41
39
36
46
43
9
21
24
39
36
16
25
3
→ swap 36 and 48
→ swap 36 and 46
→ swap 36 and 39
Result
48
46
41
39
43
9
21
24
36
16
25
3
array
48
46
41
39
43
9
21
24
36
16
25
3