

## Assignment 4

R-2.8 → selection sort → 22, 15, 26, 44, 3, 9, 13, 29, 25

3, 15, 26, 44, 22, 9, 13, 29, 25

3, 9, 26, 44, 22, 15, 13, 29, 25

3, 9, 13, 44, 22, 15, 26, 29, 25

3, 9, 13, 15, 22, 44, 26, 29, 25

3, 9, 13, 15, 22, 25, 26, 29, 44  $O(n^2)$

miss num 10

R-2.9 → insertion sort → 22, 15, 26, 44, 3, 9, 13, 29, 25

15, 22, 26, 44, 3, 9, 13, 29, 25

3, 22, 26, 44, 9, 13, 29, 25

3, 9, 22, 26, 44, 13, 29, 25

3, 9, 13, 22, 26, 44, 29, 25

3, 9, 13, 15, 22, 26, 29, 44, 25

3, 9, 13, 15, 22, 25, 26, 29, 44

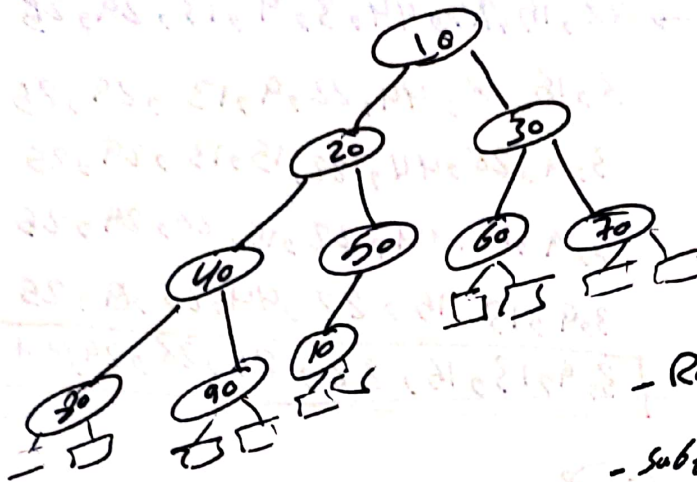
$O(n^2)$

R-2.10 → worst case ??

R-2.13

→ Yes

10	20	30	40	50	60	70	80	90	100
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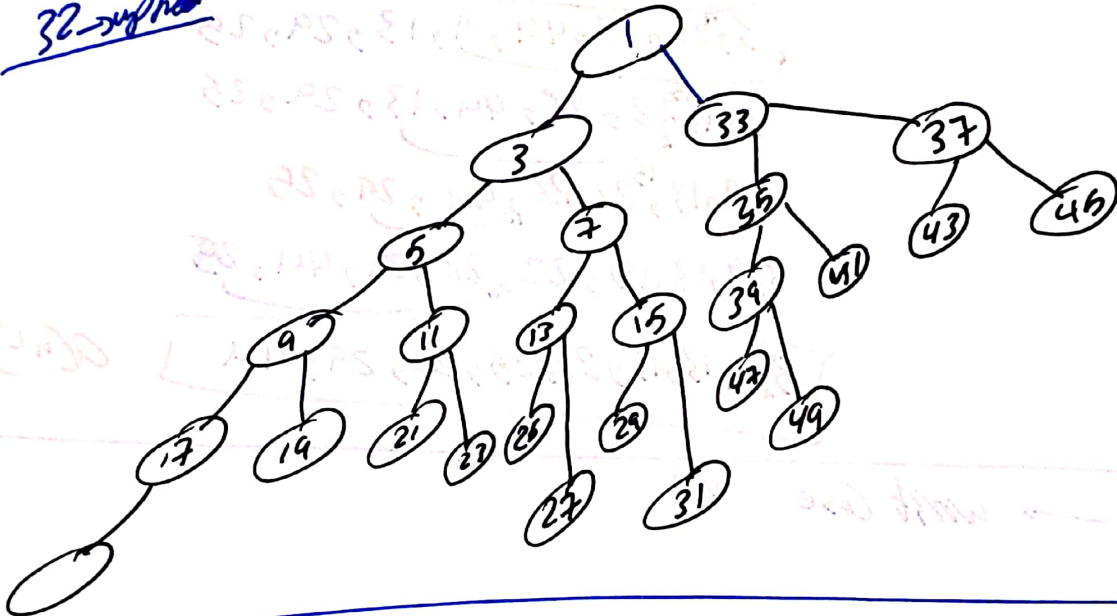


- Root has minimum value / 10 → root

- subtrees also heaps → ascending to leaf

R-2.18

32-super



R-2.32 → ??