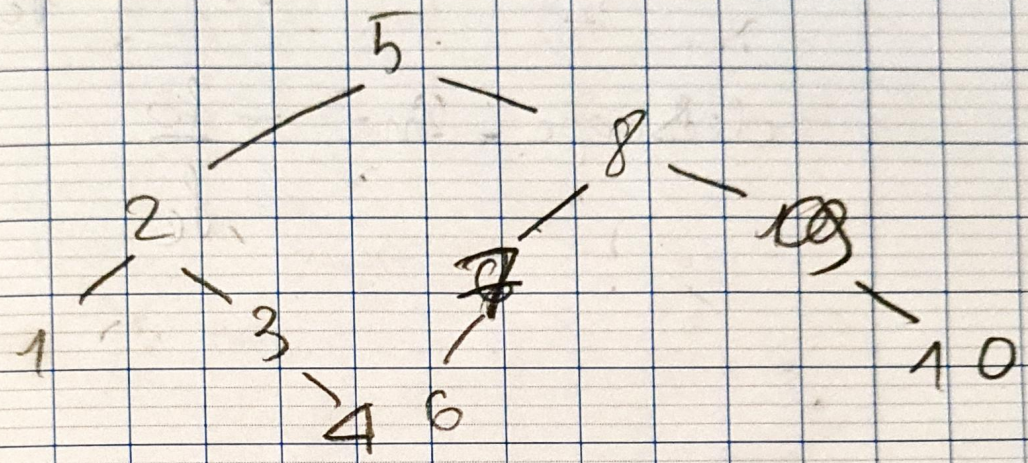
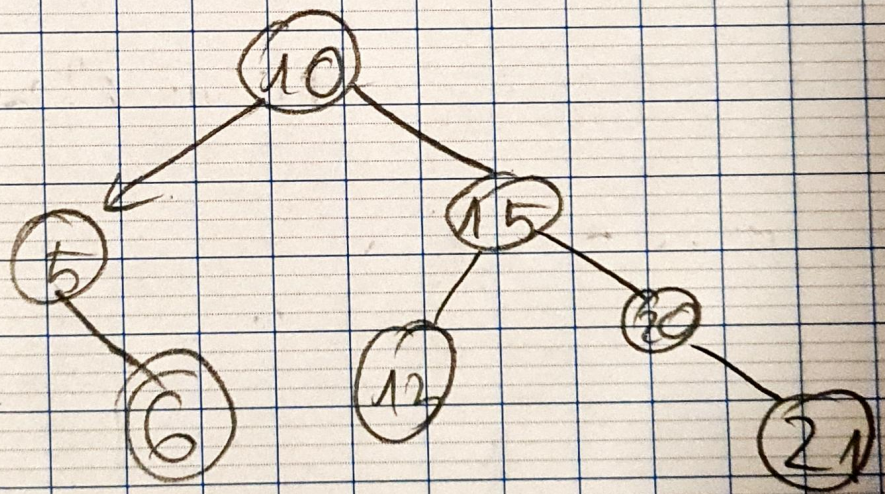
3.1)

1. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10



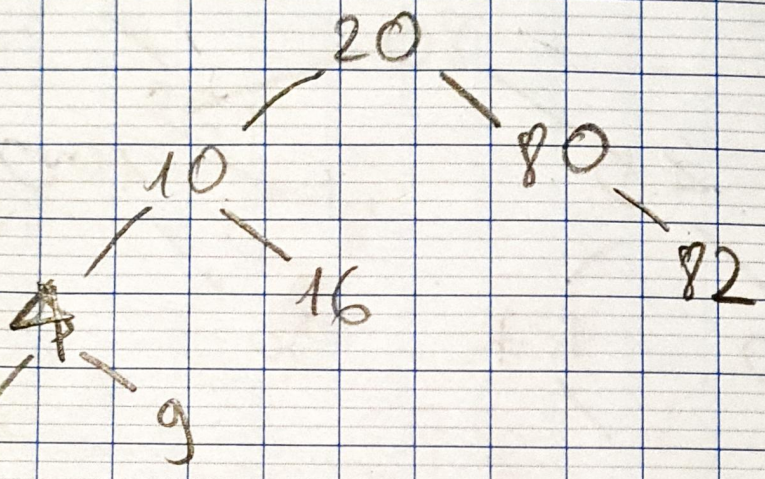
2. 5 → 10 → 15 → 13 → 20 → 6 → 21



3)

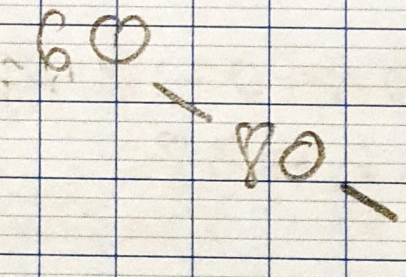
- Left-left imbalance:

10 → 80 → 20 → 16 → 82 → 4 → 3 → 2



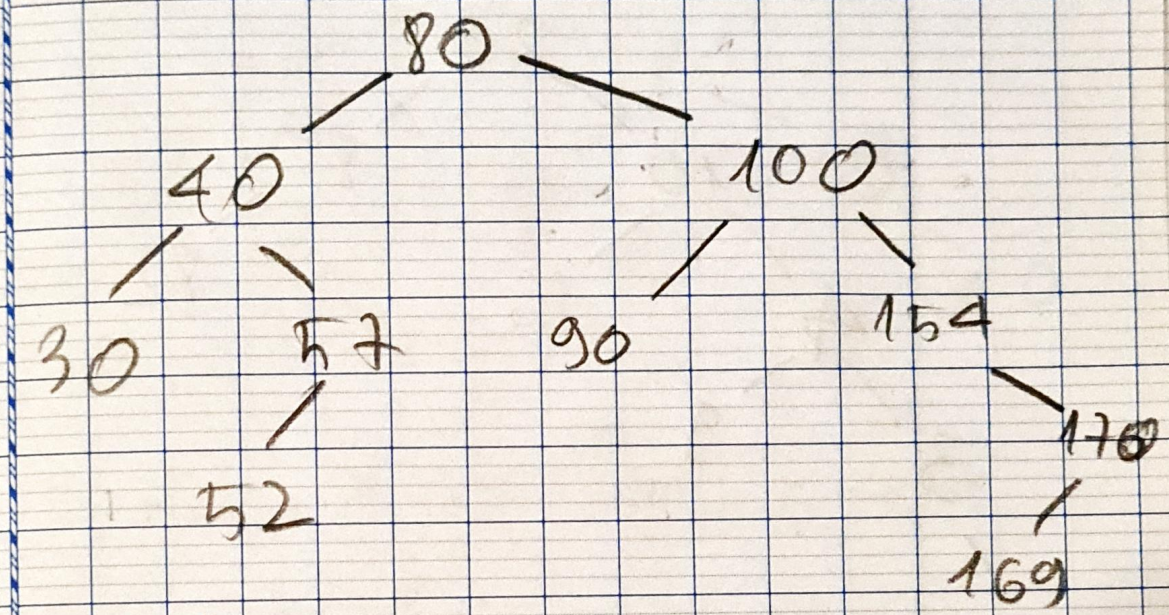
- Right-Right imbalance

60 → 70 → 90



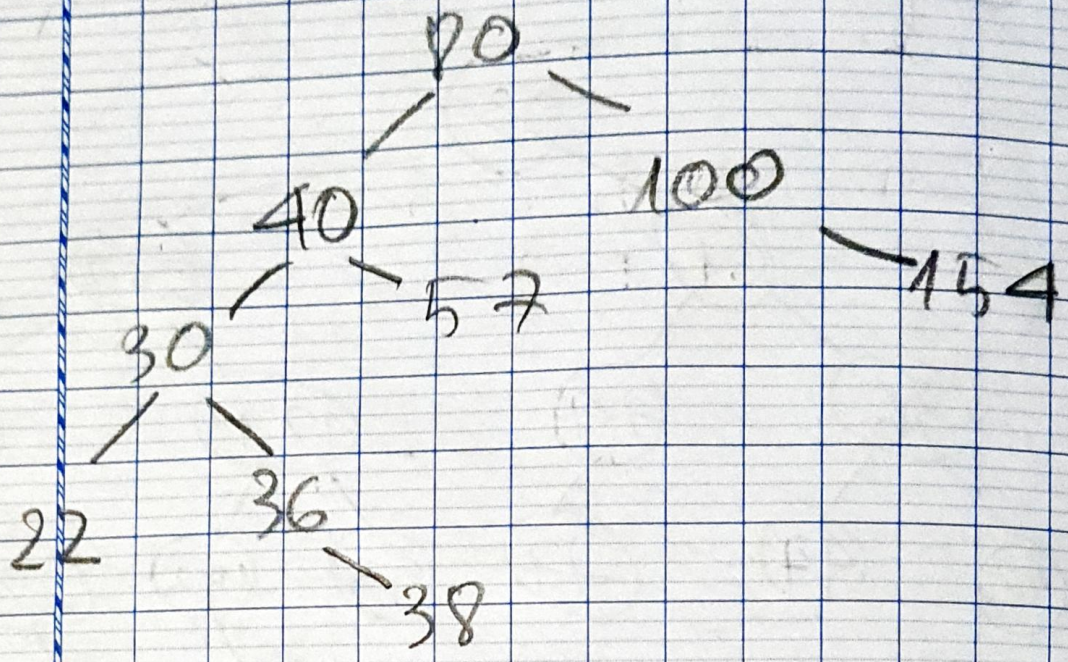
↓ Right - Left :

80 → 100 → 40 → 30 → 57 → 154 → 90
→ 52 → 170 → 160



↓ Left right :

80 → 100 → 40 → 154 → 30 → 57 →
22 → 36 → 38



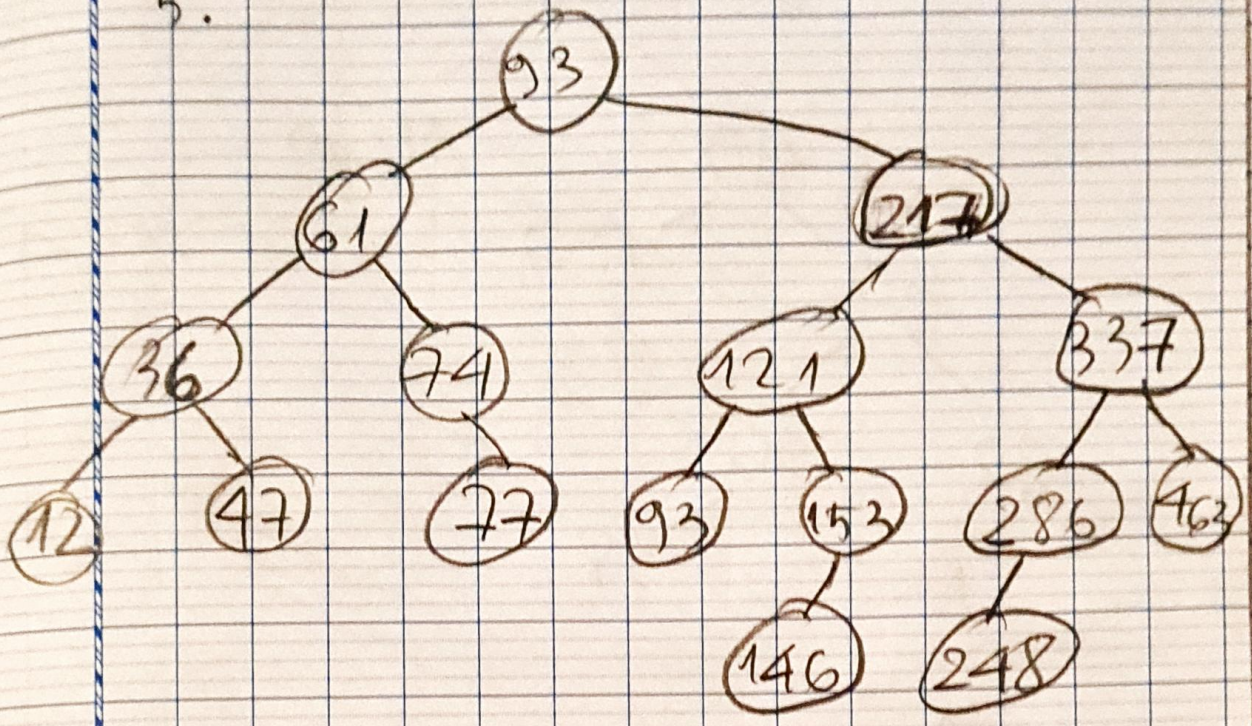
4.

a. 1 → 9 → 37 → 45

imbalance occur at node 45

b. ~~1~~ 9 → ~~37~~ → 35

→ imbalance occur at node 35

c. Right-left imbalance

5.