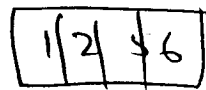


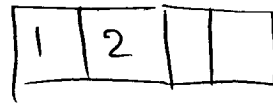
a)

Insert 3: cause

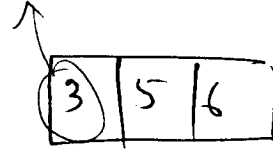


to overflow

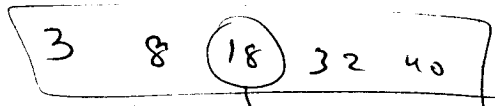
split it



push up.

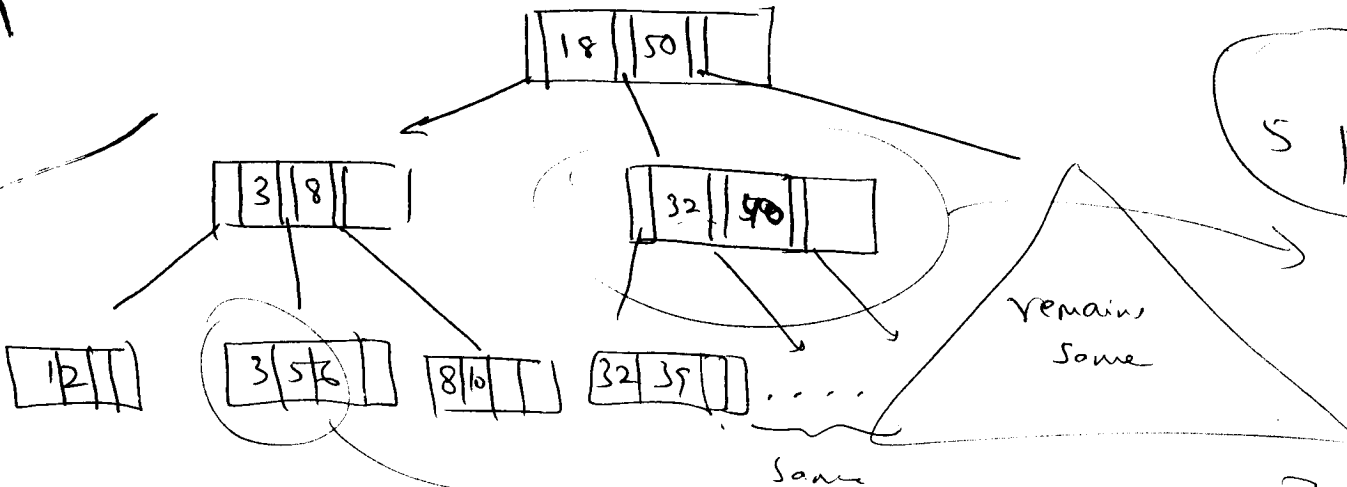


now at parent we have



push up.

Final answer:-



5 points

18 should appear here
-1 if not shown

3 should be here
-1 if wrong

Total page reads and writes:

Total 8

5 points

- 3 page reads to find correct leaf.
- 2 page write for leaf level split
- 2 page write for internal level split (write a new page and the old one)
- 1 page write for root.