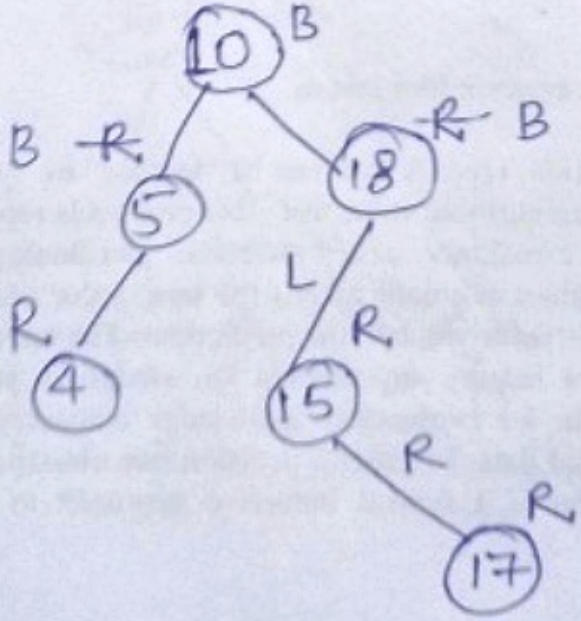
R B Tree Insertion

1. If tree is empty then create newnode as root node with color Black.
2. If tree is not empty then insert newnode with color Red.
3. If the parent of newnode is Black then exit.
4. If the parent of newnode is Red then check the color of parent's sibling of new node.
5. If it's color is Black or NULL then make suitable rotation & Recolor it.
6. If its color is Red then Recolor.

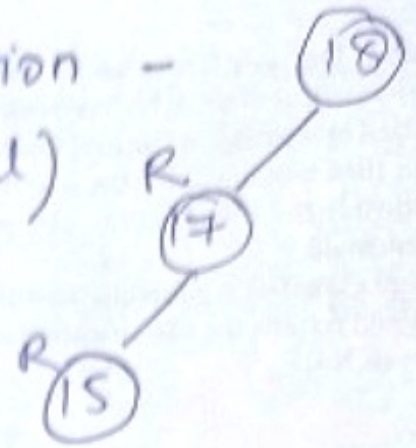
10, 18, 5, 4, 15, 17, 25, 60, 1, 90.

1. Root is always Black
2. No two adjacent Red node
3. No. of Black nodes in every path are same

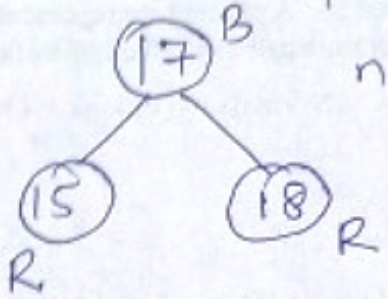


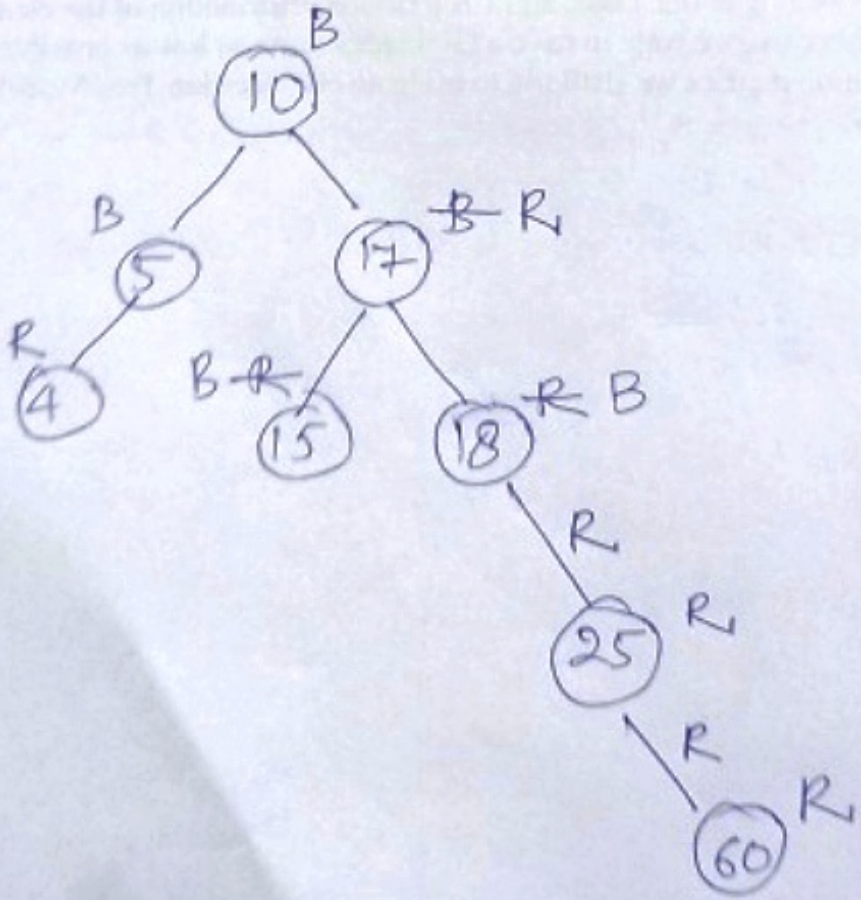
LR Rotation Problem

Left rotation - (In this color will same)



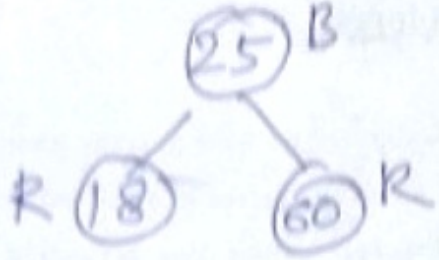
Right rotation (In this color change b/w parrent & arround parent node after left rotation)

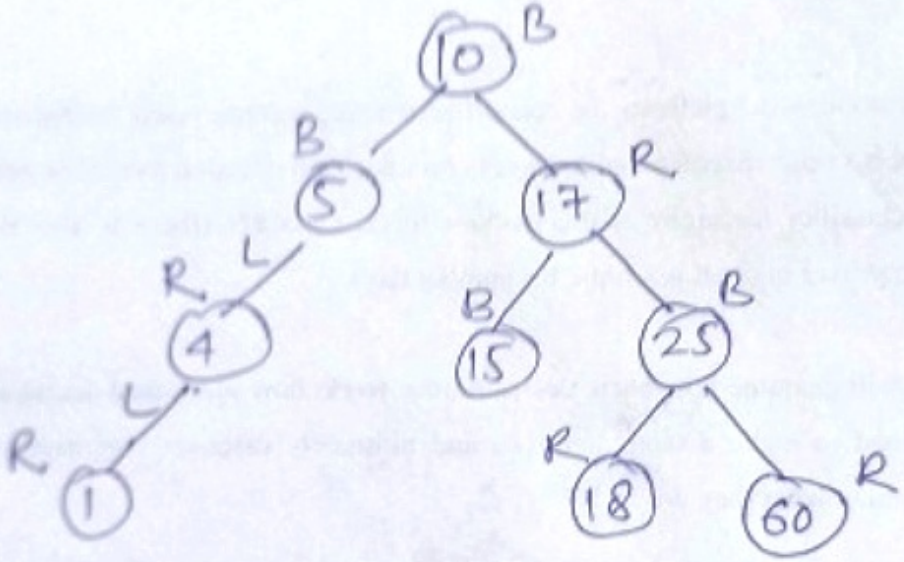




RR problem (left rotatation)

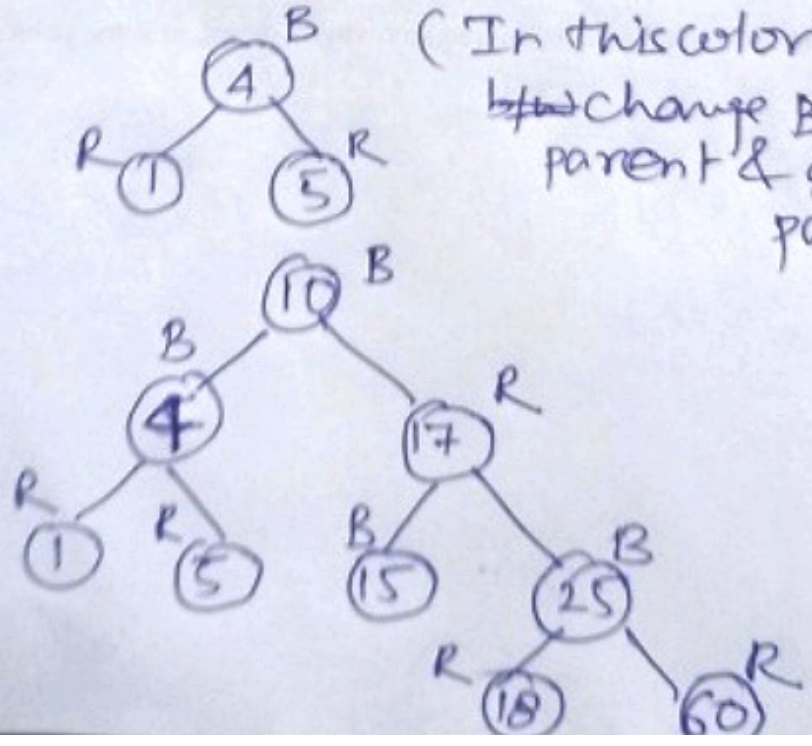
(In this color change b/w parent & Grand parent)

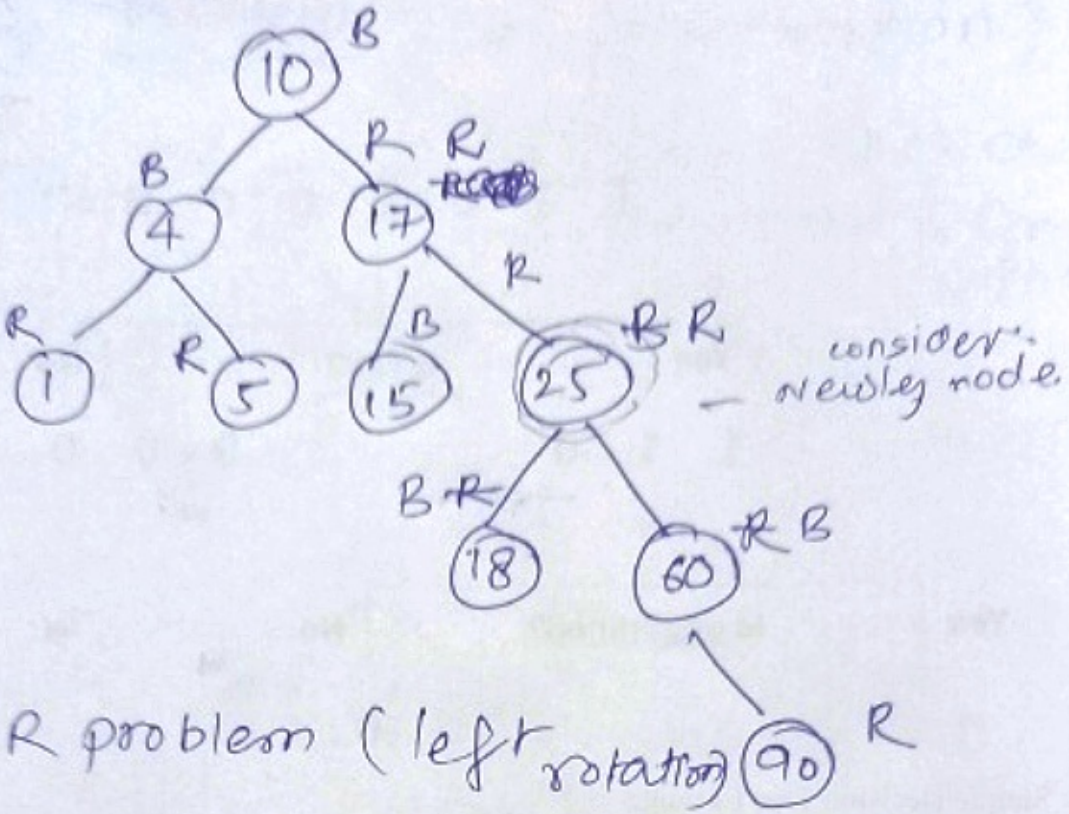




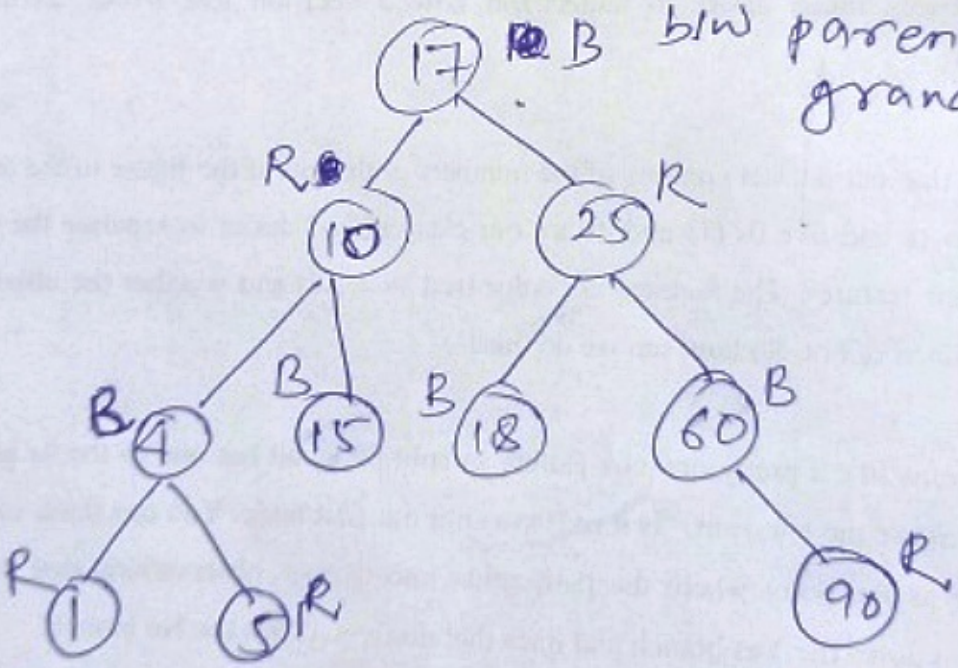
LL problem (right rotation

(In this color ~~change~~ change B/W parent & grand parent)





RR problem (left rotation)



(In this color change blw parent & grand parent)