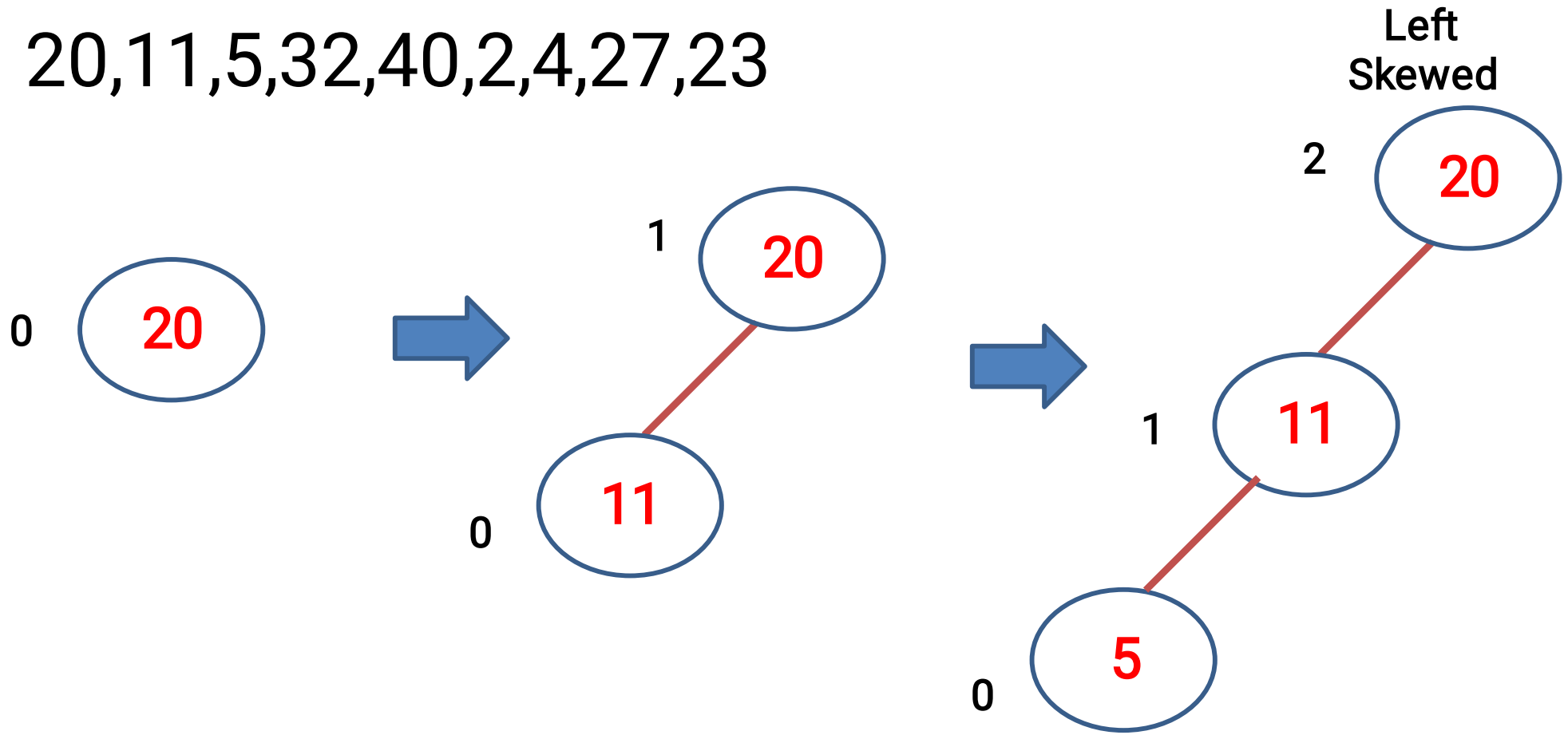
AVL Tree

Radhesyam vaddi

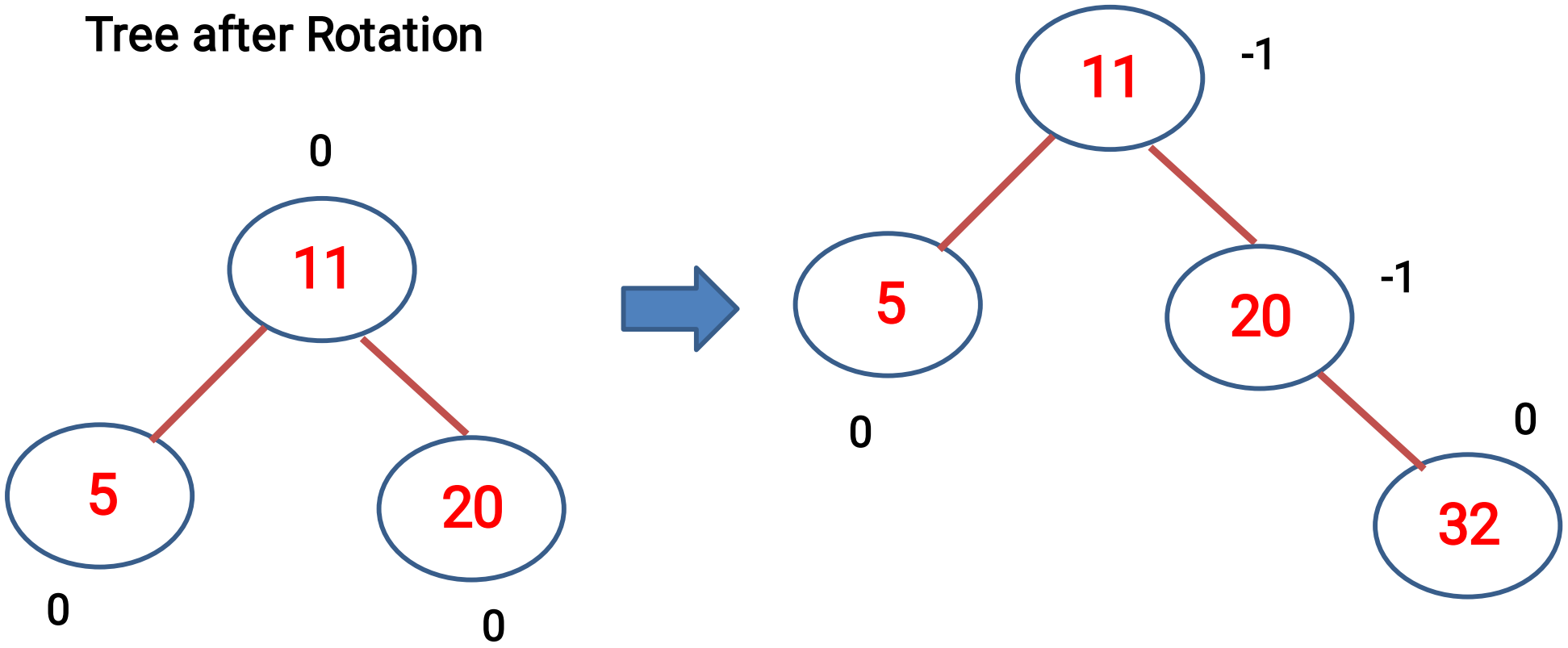
AVL Tree

- Construct AVL Tree with following data
- 20,11,5,32,40,2,4,27,23



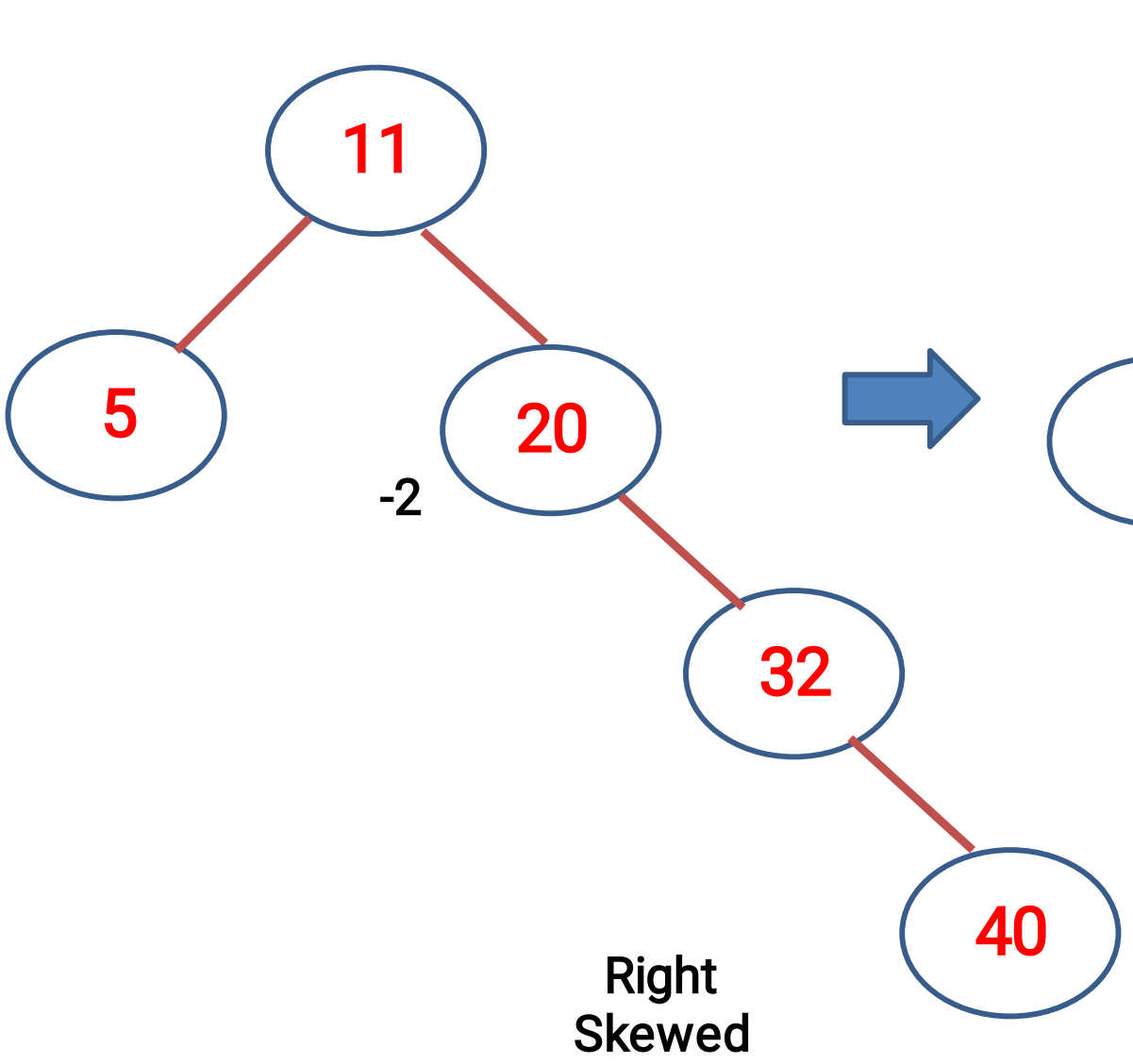
Now tree became Un balanced
So Need to Perform Rotation
LL Rotation means (Right Rotation)

Tree after Rotation



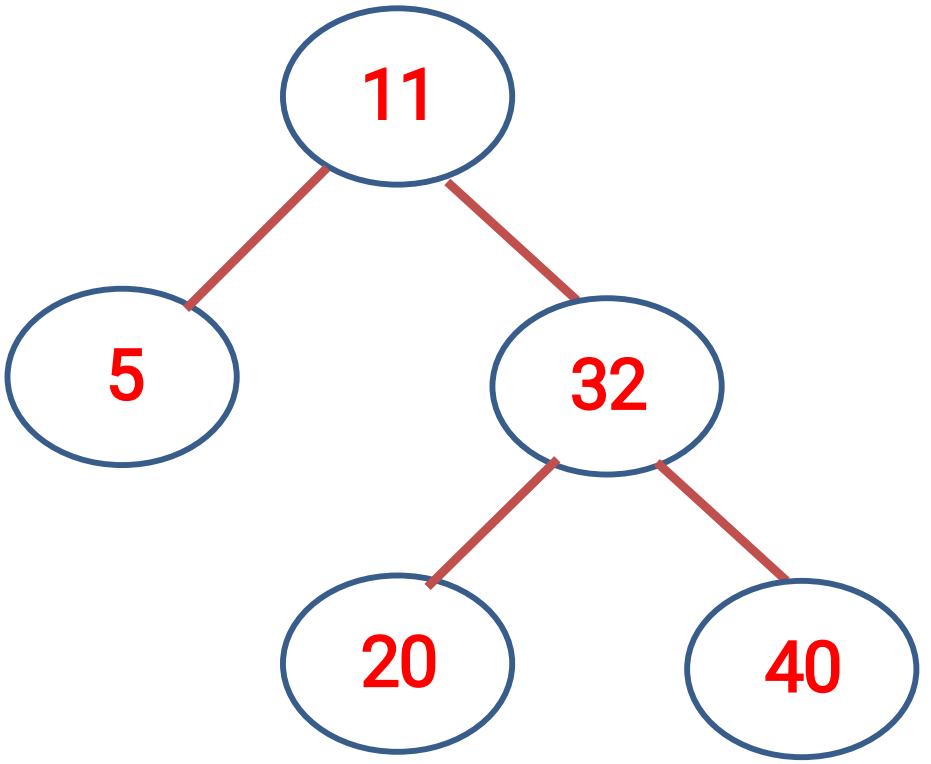
Balance Factor=height of left sub tree-height of right sub tree

If Balance Factor is -1,0,1 BALANCED otherwise UNBALANCED

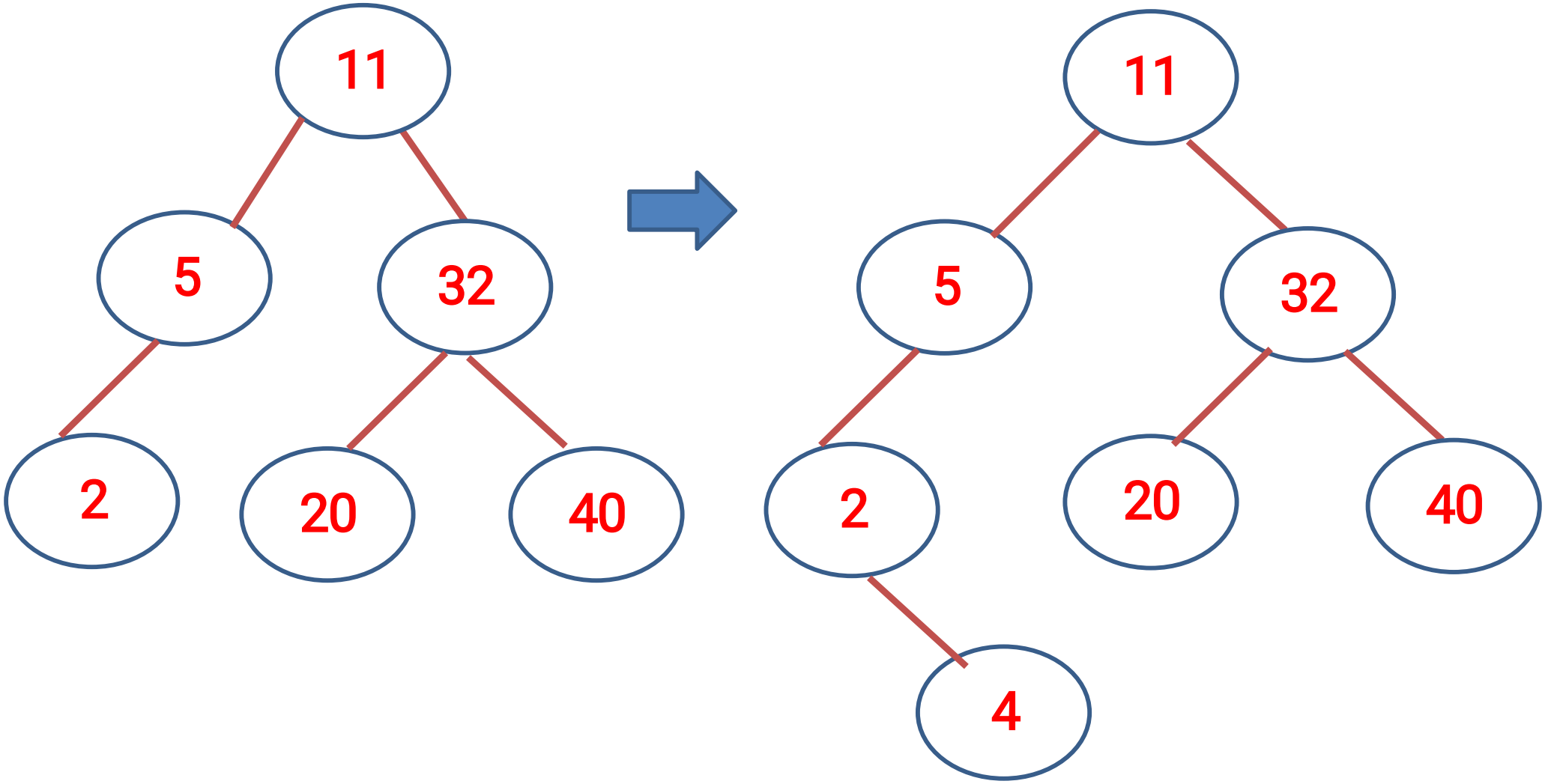


Right Skewed

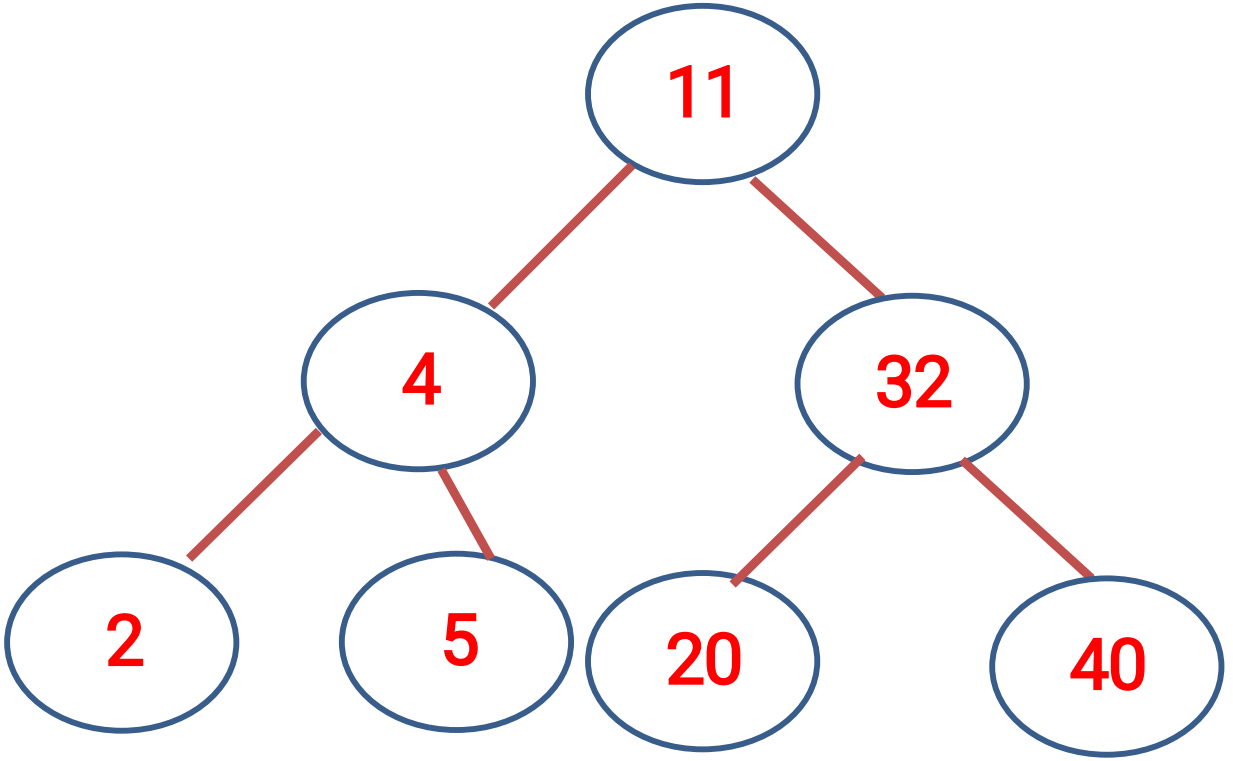
Tree after Rotation



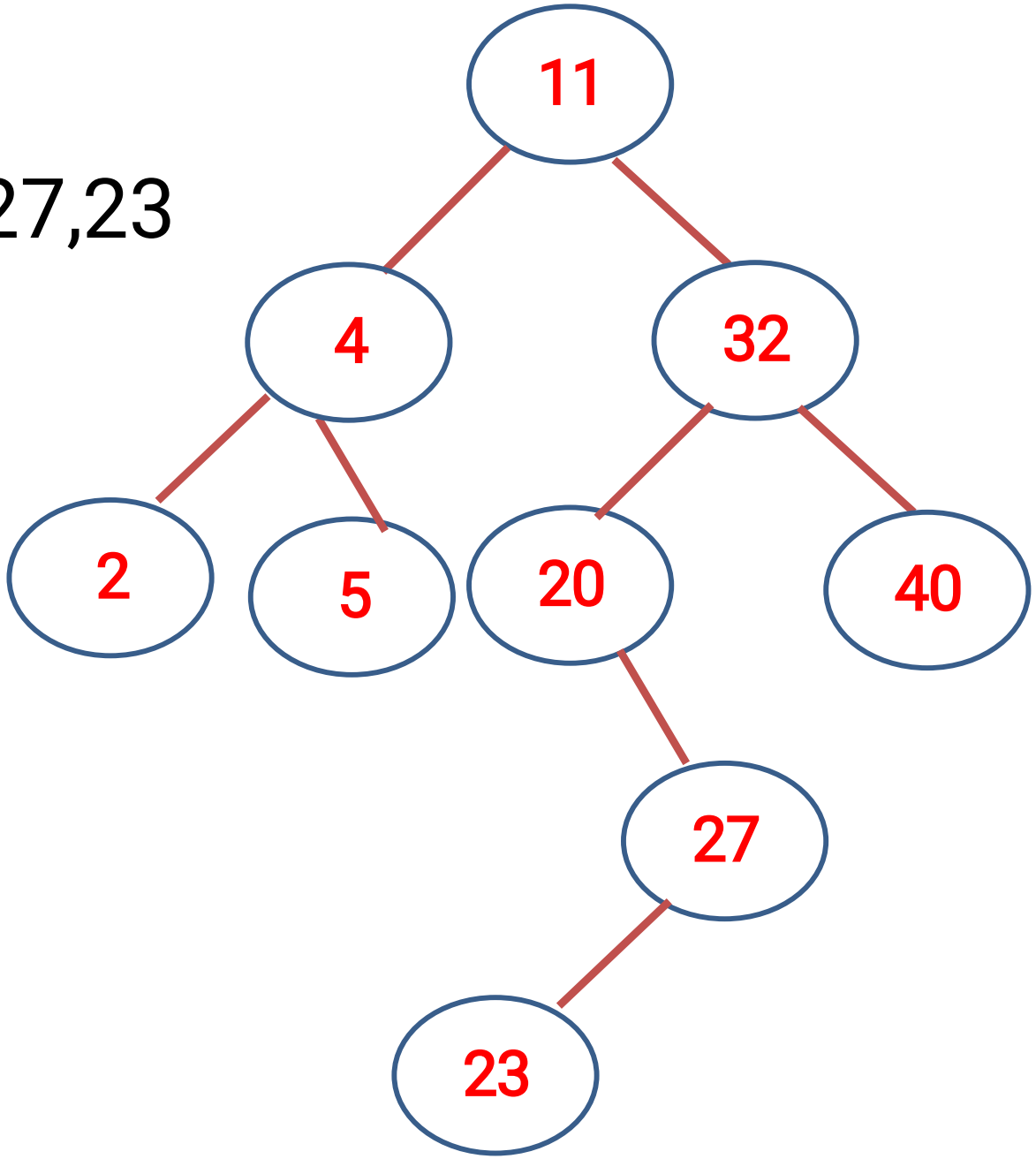
Now tree became Un balanced
So Need to Perform Rotation
RR Rotation means (Left Rotation)



LR Rotation
Left + Right

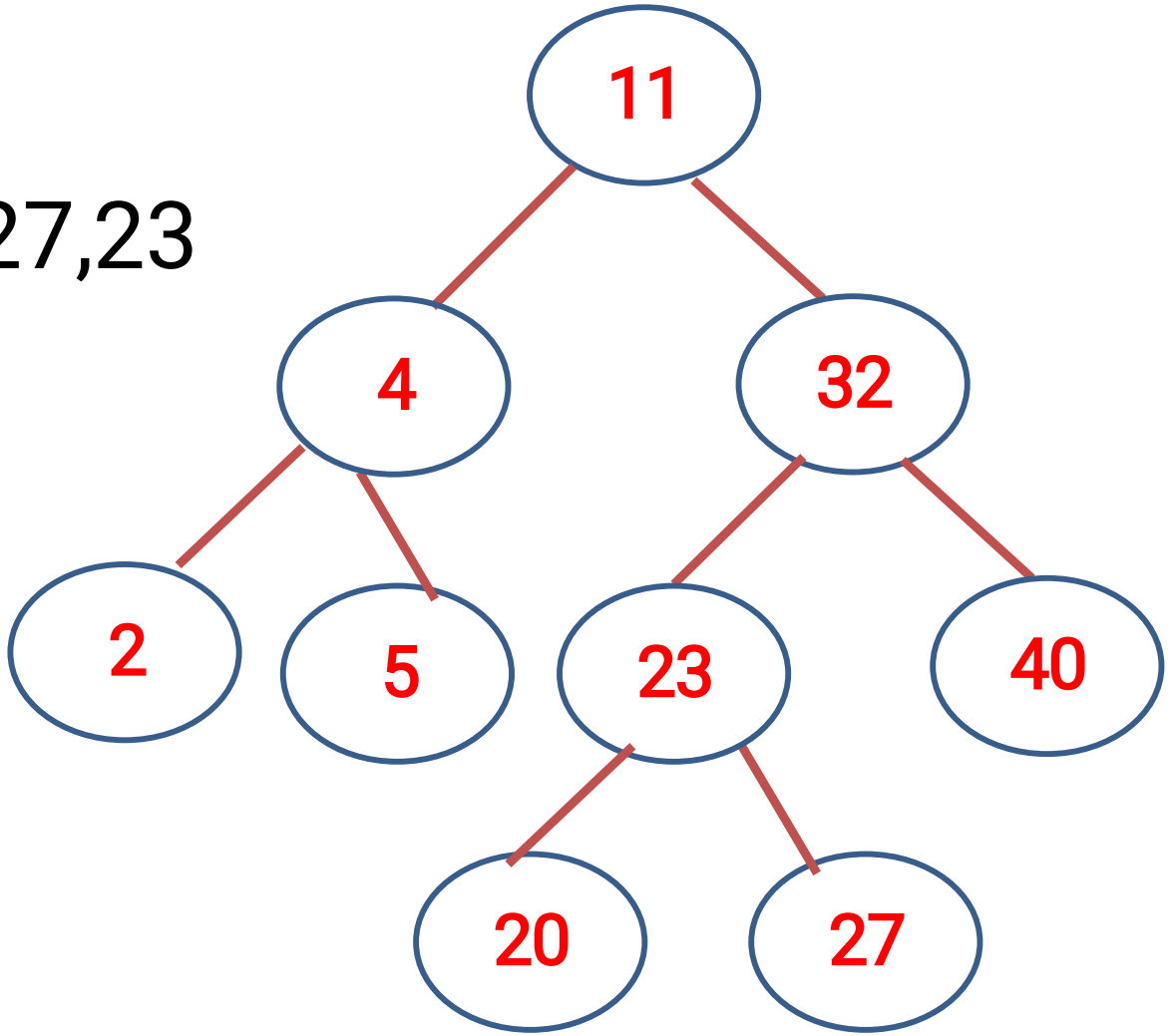


20,11,5,32,40,2,4,27,23



20,11,5,32,40,2,4,27,23

RL Rotation
Right +Left



- AVL=Balanced BST
- Every sub tree of AVL Tree is also AVL
- Insertion and Deletion Operations Takes O(logn)