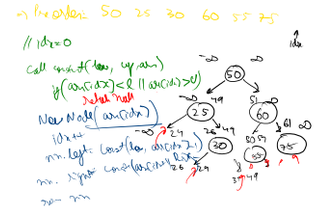
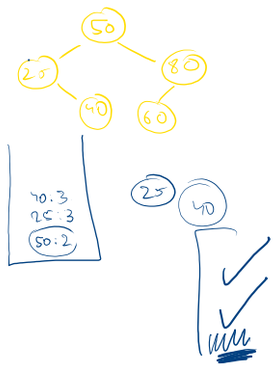
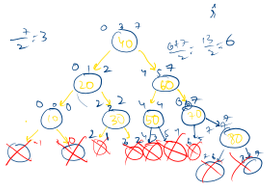
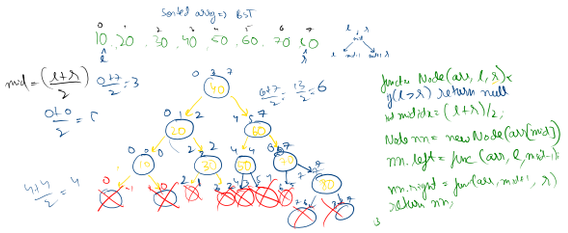
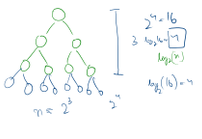


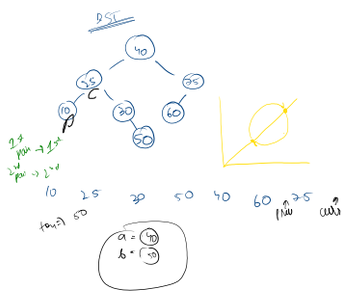
```
public static TreeNode getNextInorder(Stack<Pair> st){

    while(st.size()>0){
        Pair top = st.peek();

        if(top.state == 1){
            //this is the first time im visiting this person
            //preorder work
            top.state++;
            if(top.node.left != null) st.push(new Pair(top.node.left,1));//insert left
        }else if(top.state == 2){
            //this is the second time im visiting this person
            //inorder work
            top.state++;
            if(top.node.right != null) st.push(new Pair(top.node.right,1));
            return top;
        }else{
            //post order work
            st.pop();
        }
    }
    return null;//dummy

}
```





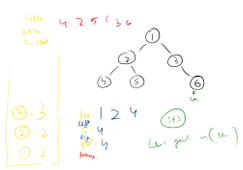






25 40

```
curr = getNextInorder(st)
while(curr != null){
    Sysout(curr.val);
    curr = getnextinorder(st)
}
```



→ Cost for level => 10.45
→ Iter DFS => 11.15
→ RecurBST => 11.35