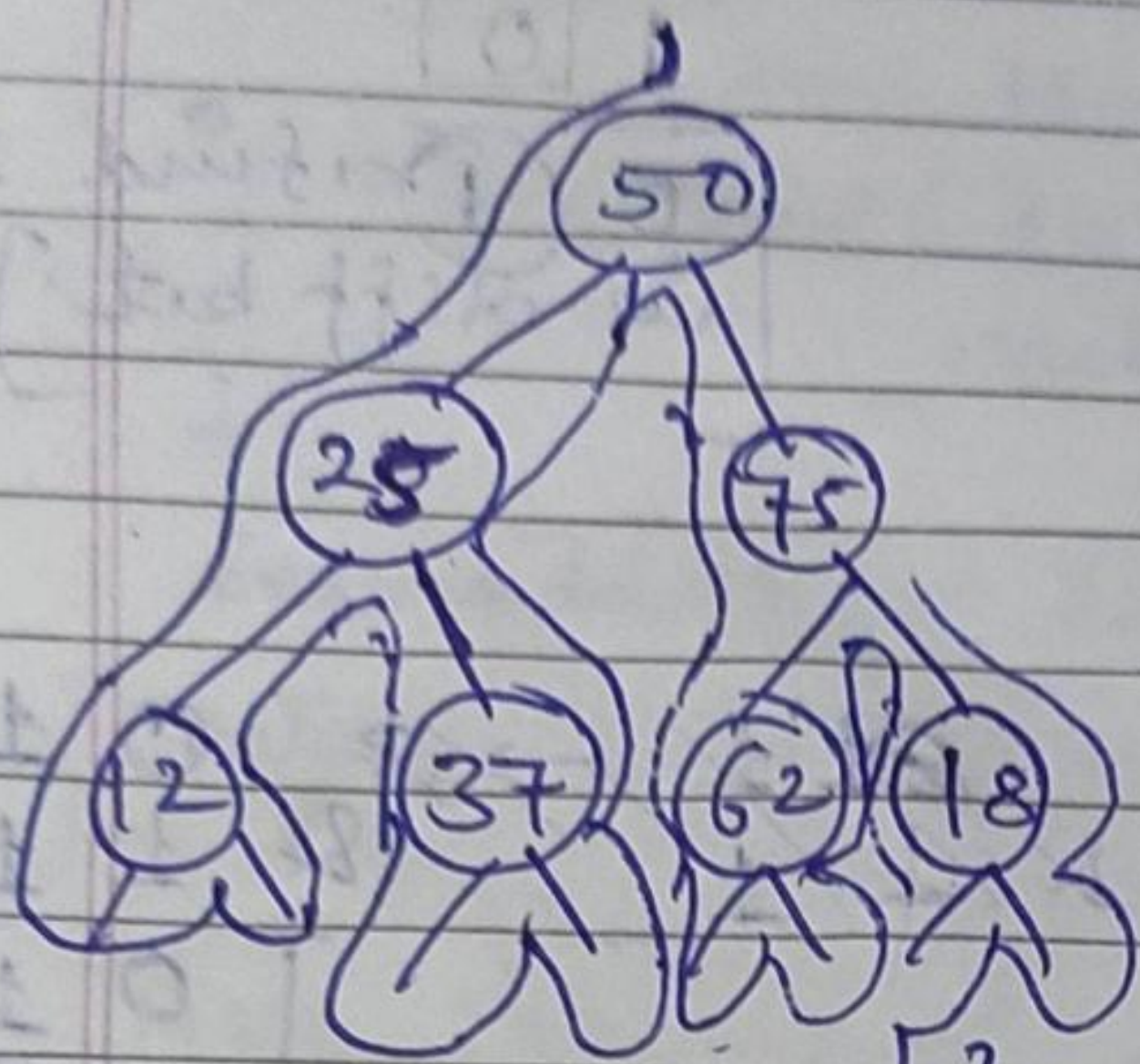


#

Iterative  
Traversal :-

Pre → Post and In order



Pre - 50 25 12 37

In - 12 25 37 50

Post - 12 37 25 62

18 - X X 3 X

62 - X X 3 X

75 - X X 3 X

37 - X X 3 X

12 - X X 3 X

25 - X X 3 X

50 - X 2

18 75 50

Pre

Visits

s = s.second + 1.

1 → Write in Pre, s++, left

2 → In, s++, Right

3 → Post, Pop,

Also

stack &lt; Pair &lt; data, state &gt; &gt; s;

st.push(rtp) rtp = {root, 1}

while (st.size() &gt; 0)

pair top = st.peak()

if (top.state == 1) // Pre, s++, left

pre.push(data)

top.state++

if (top-&gt;left != null)

st.push(left)



else if ( top.state == 2 )  
    in.push ( top ).  
    top.state ++  
    if ( top → left != null )  
    {  
        st.push ( op ).  
    }

else post, pop  
    post.push ( top )  
    st.pop();