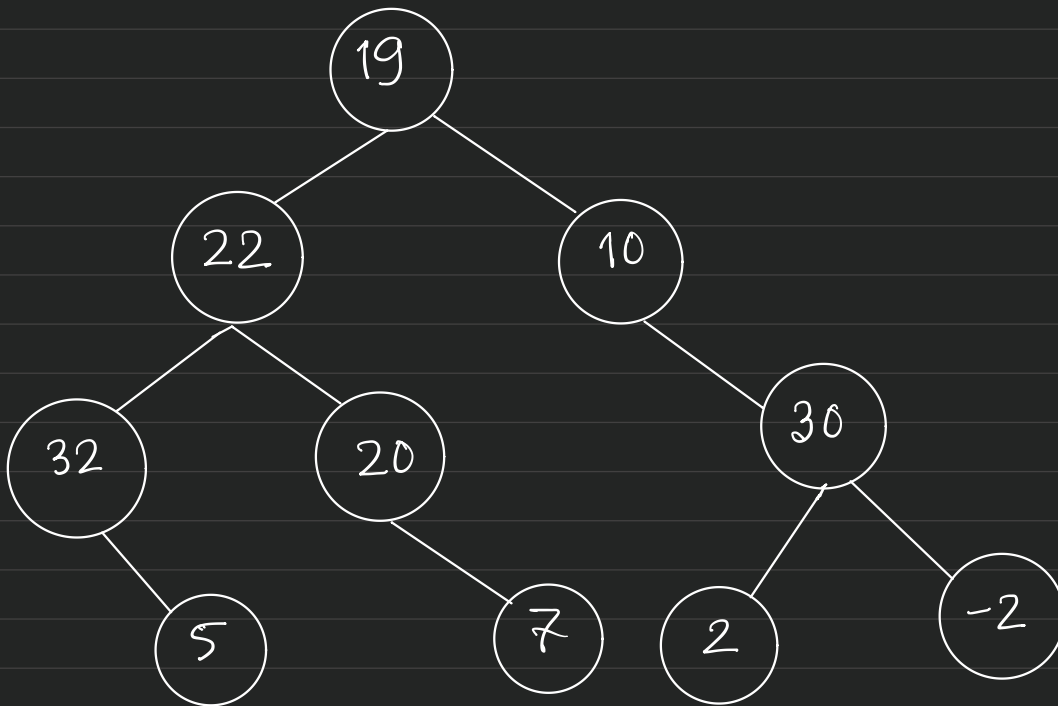
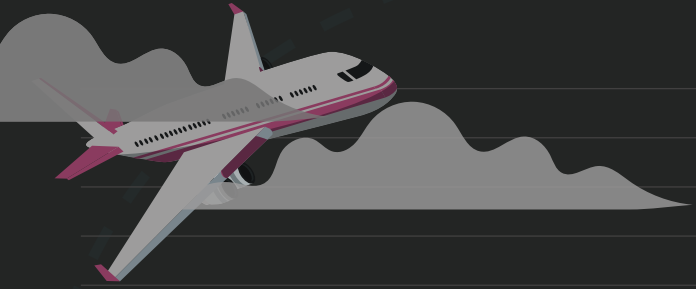




1 2

children: left: $2i$ | $i=1; l=2$ | $i=2, l=4$ | $i=3, l=6$
 right: $2i+1$ | $r=3$ | $r=5$ | $r=7$

$$i=7, l=14$$
$$r=15$$




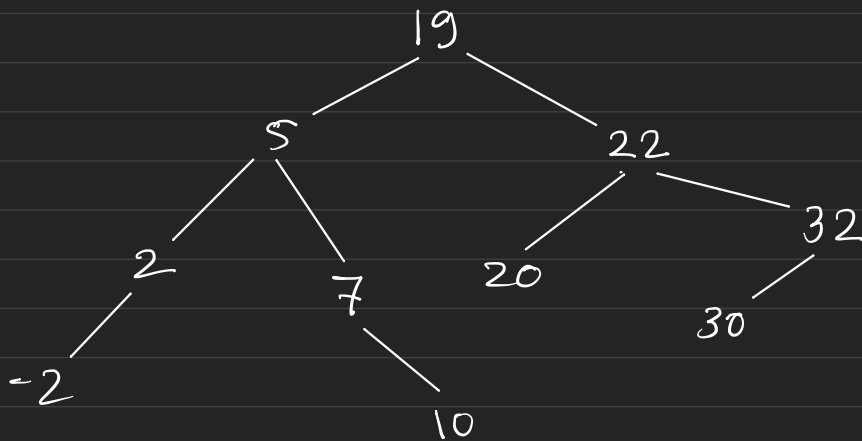
(b) post order: left, right, root

\therefore post-order: 5, 32, 7, 20, 22, 2, -2, 30, 10, 19

preorder: root, left, right

\therefore preorder: 19, 22, 32, 5, 20, 7, 10, 30, 2, -2

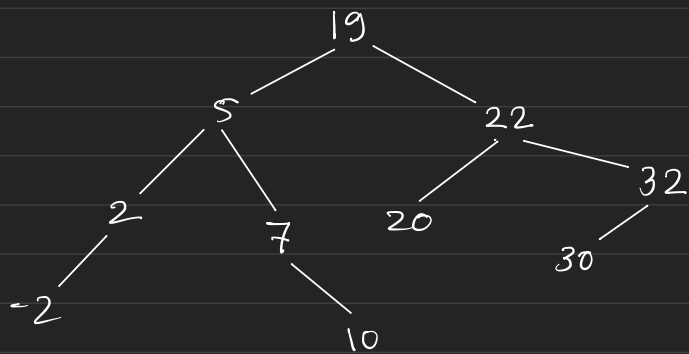
(c) preorder: 19, 22, 32, 5, 20, 7, 10, 30, 2, -2



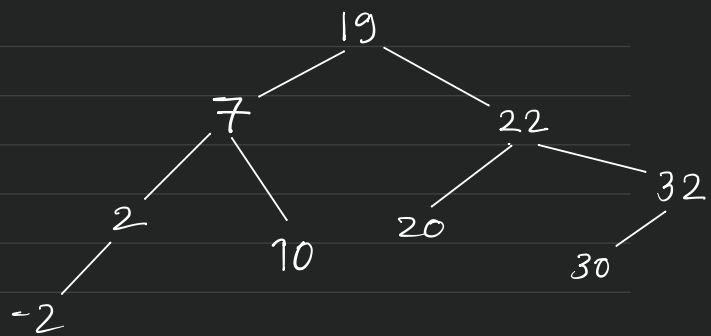


(d) Deleting node 5 with the help of its successor

original



After Modification



Deleting node 20 with the help of its predecessor:

