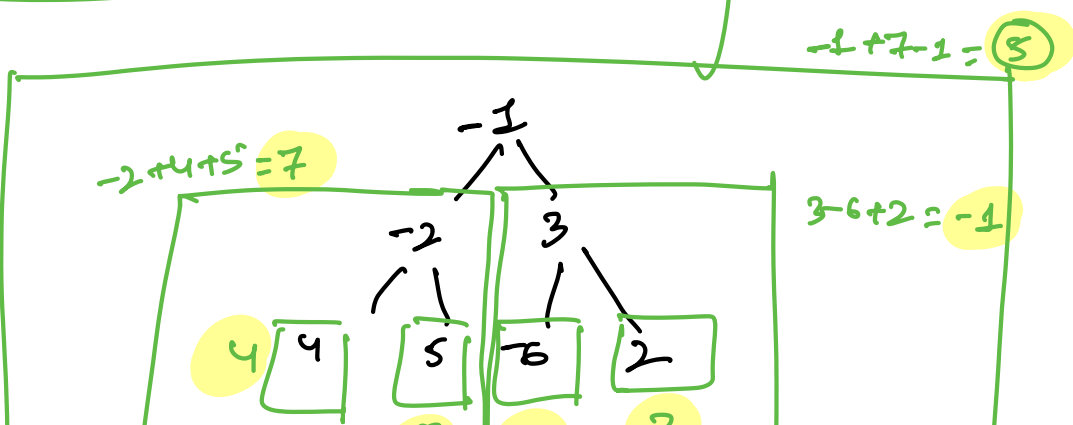
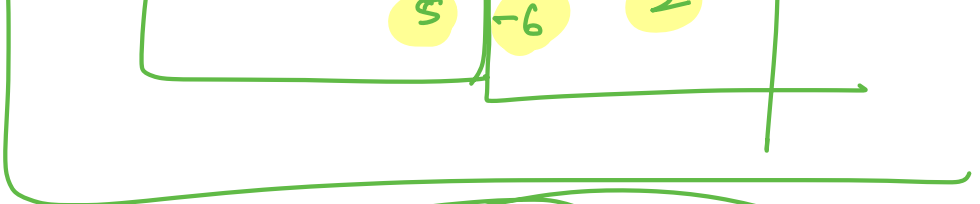
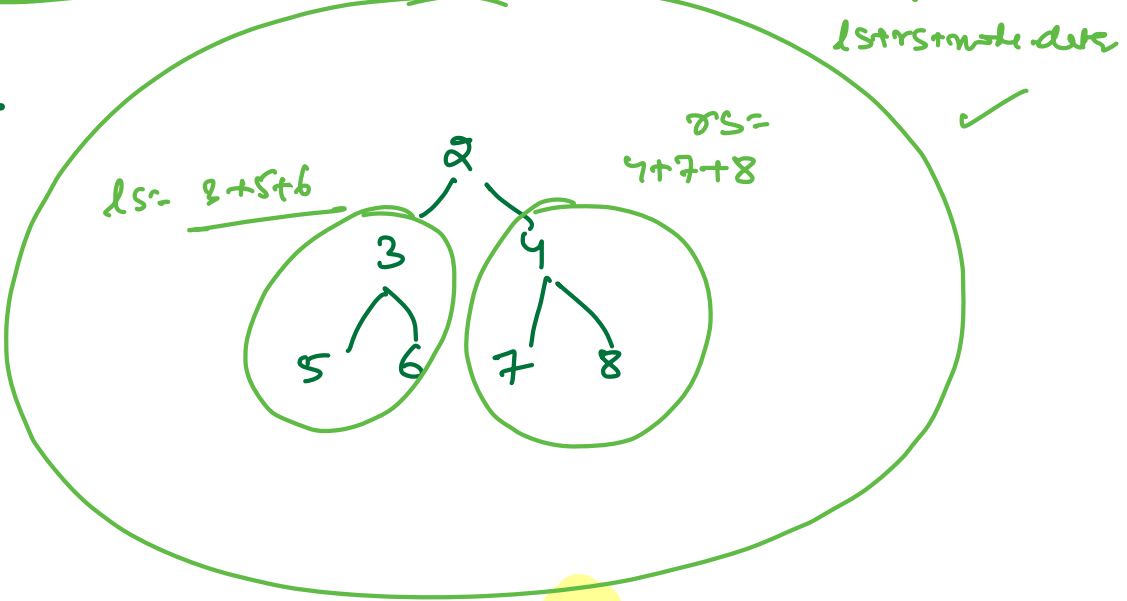


ans = 7

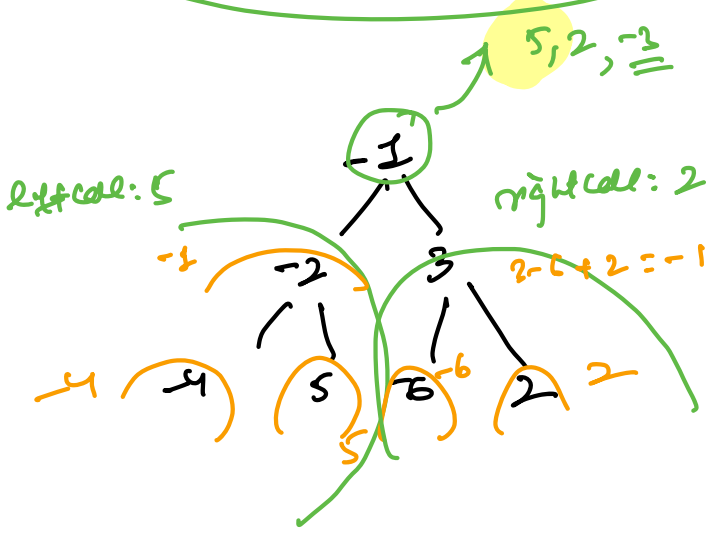




Tree given:



~~-1-2+3~~
 -4+5-6+2
 -10+7
 -3

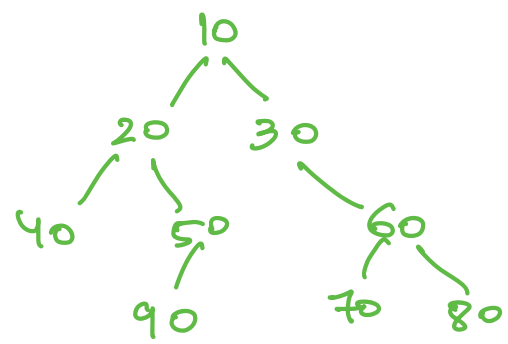


Preorder → NLR
 Inorder → LNR
 Postorder → LRN

Preorder + Inorder = Uniquely Constructed

✓ Post + Inorder →

✓ Preorder + Postorder → full
 [0 child
 2 child] 1 child X



pl0=0

$preorder: \overset{0}{10} \quad \overset{1}{20} \quad \overset{2}{40} \quad \overset{3}{50} \quad \overset{4}{90} \quad \overset{5}{30} \quad \overset{6}{60} \quad \overset{7}{70} \quad \overset{8}{80}$ NLR
 $inorder: 40 \quad 20 \quad 90 \quad 50 \quad \overset{4}{10} \quad 30 \quad 70 \quad 60 \quad 80$ LNR
 $ilo: 0 \quad iwi: 8 \quad \underline{ib=20} \quad 4 \quad \underline{si=4} \quad R \quad \underline{iw=8}$

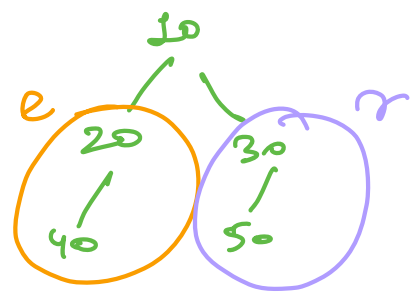
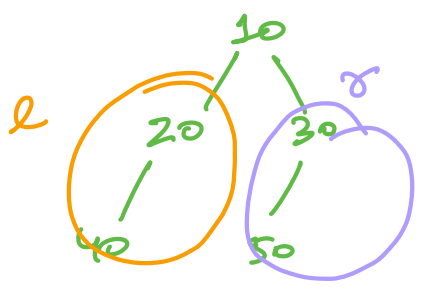
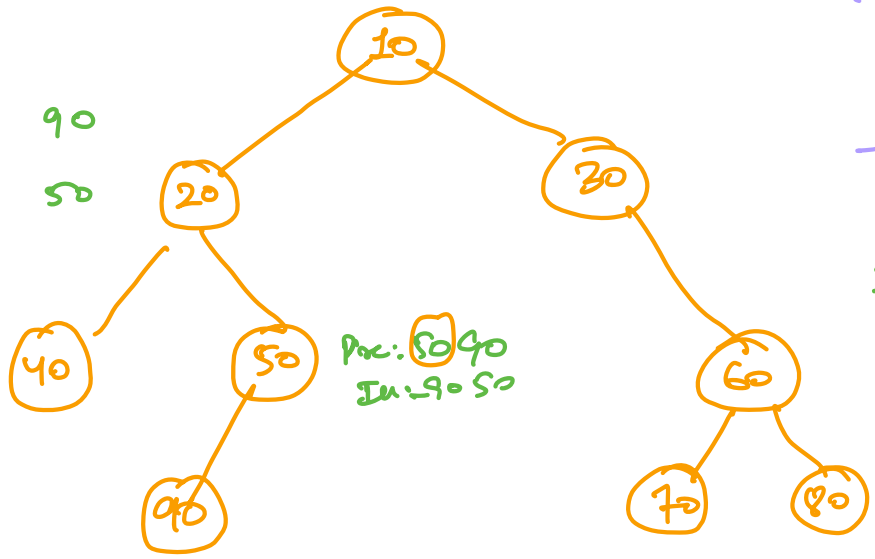
- Preorder first
wide tree
not wide

- Preorder first
Search inorder

$Pre: 10 \quad 60 \quad 70 \quad 80$
 $In: 20 \quad 70 \quad 60 \quad 80$

$Pre: 60 \quad 70 \quad 80$
 $In: 70 \quad 60 \quad 80$

$ilo=1 \quad ih=4$
 $Pre: 20 \quad 40 \quad 50 \quad 90$
 $In: 40 \quad 20 \quad 90 \quad 50$
 $ilo=0 \quad ih=3$



$l: t$
 $r: t$
 node \rightarrow data both true } ok



$(sk, null) \rightarrow out false$
 $(null, sk) \rightarrow$

null, null