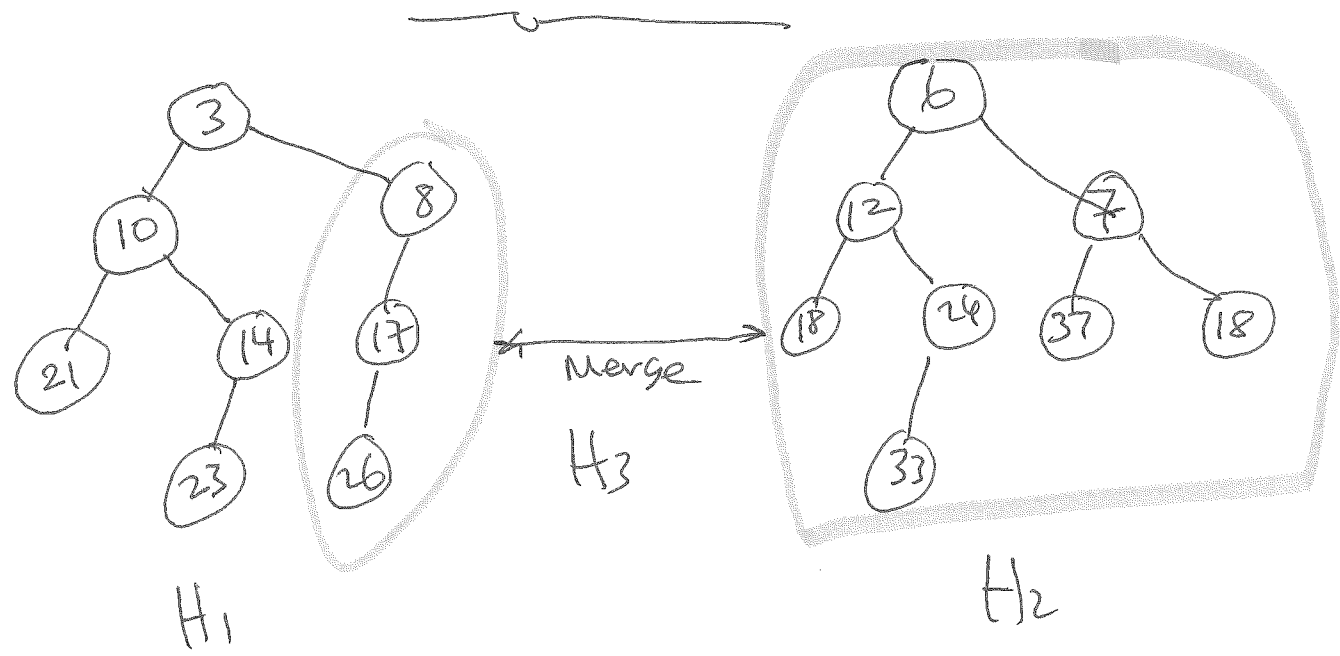
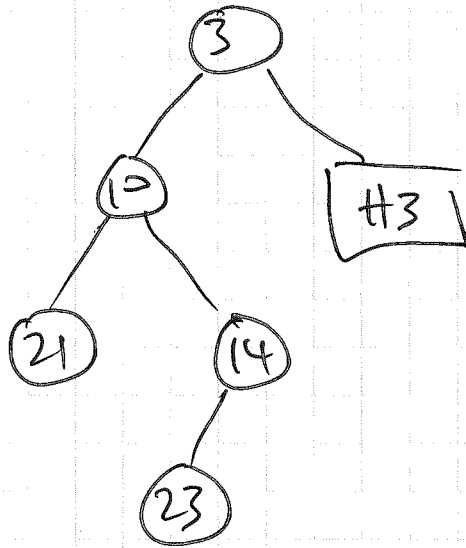


- Compare  $Root(H_1)$  &  $Root(H_2)$   
 $Root(H_1) < Root(H_2)$
- Merge  $H_2$  &  $RSH(H_1)$   
 call that  $H_3$
- Make  $H_3$  the new  $RSH(H_1)$
- $LSH(H_1)$  : already leftist } induction hypothesis
- $H_2$  : already leftist
- $H_3$  : has a leftist LSH & leftist RSH, however itself may not be leftist  $\rightarrow$  Swap LSH and RSH to make  $H_3$  leftist (if needed)

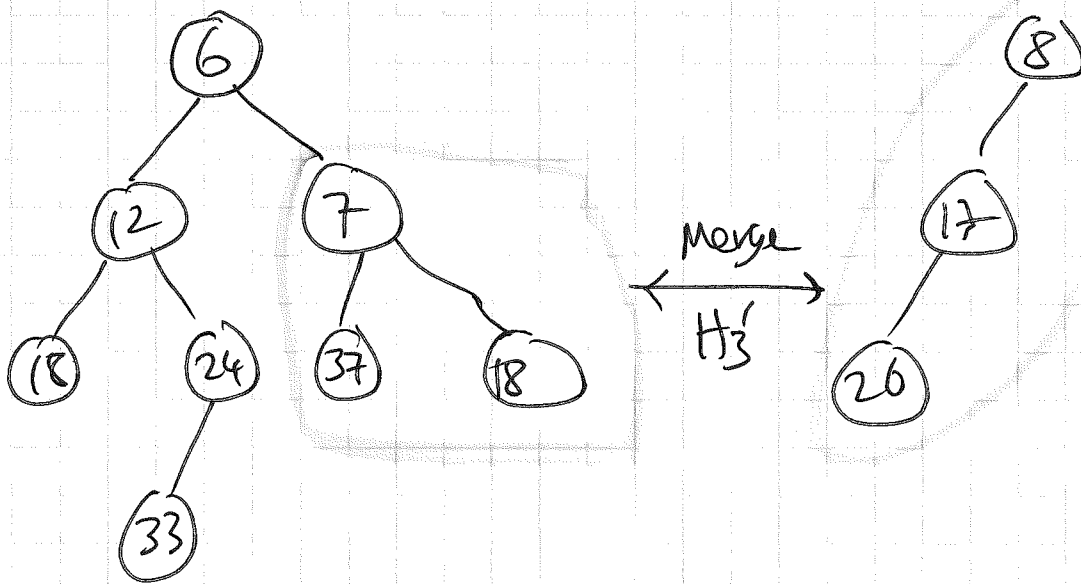


After the merge:

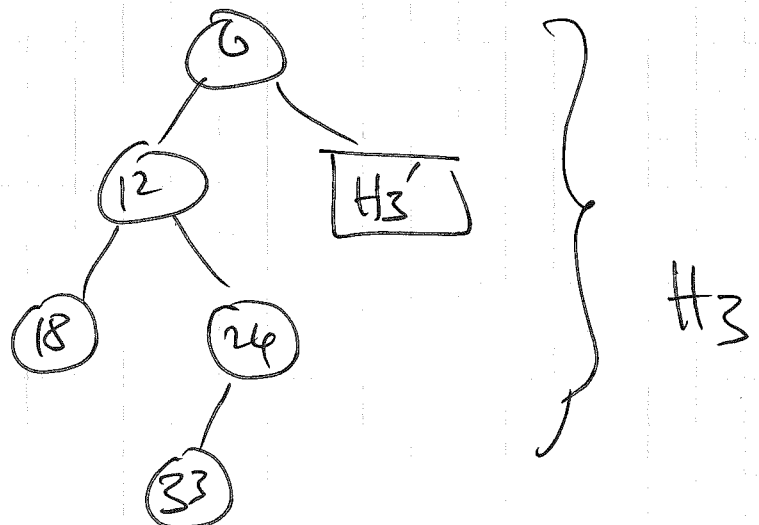
(2)

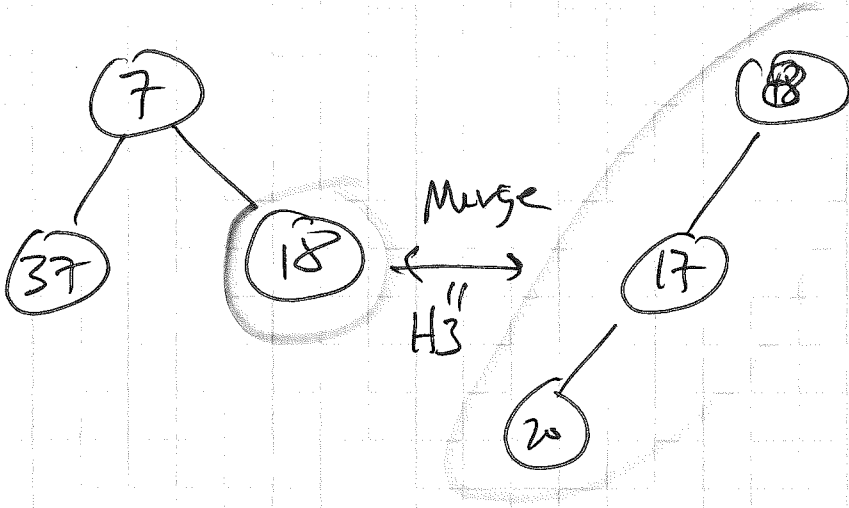


the new one

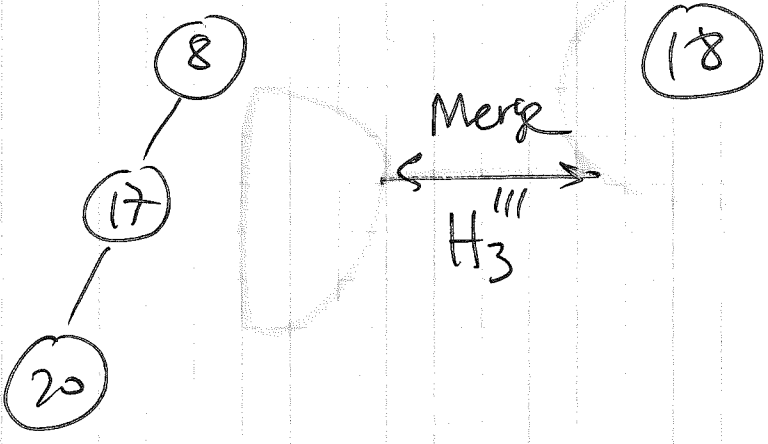
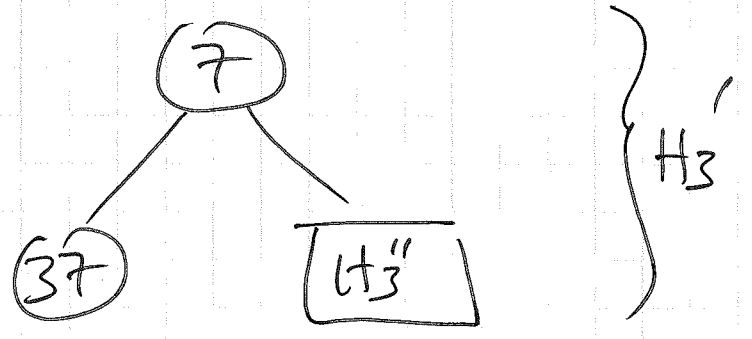


After the Merge:

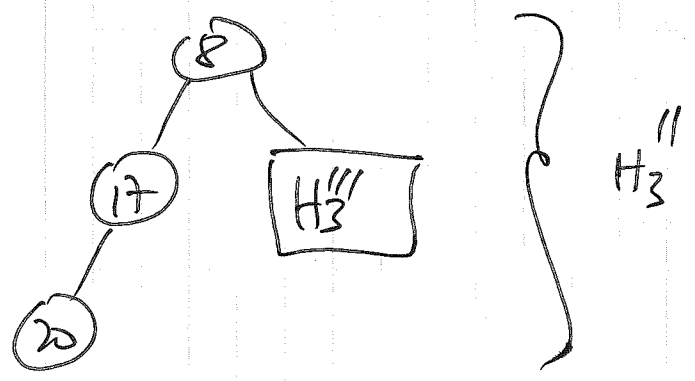


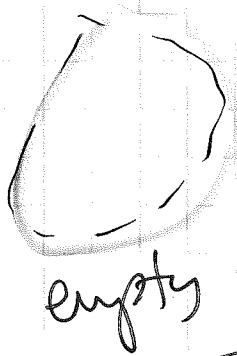


after the merge

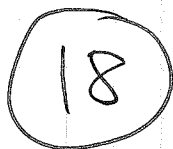


After the merge :

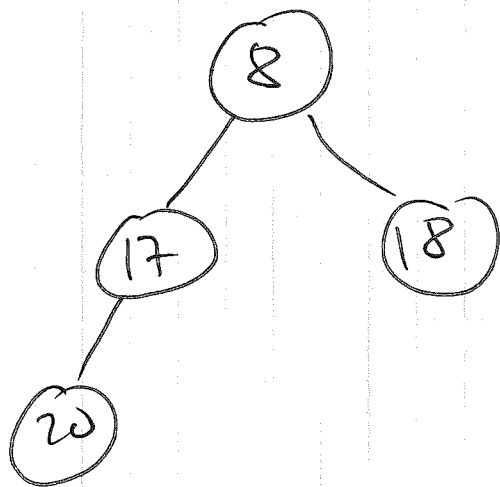




Merge

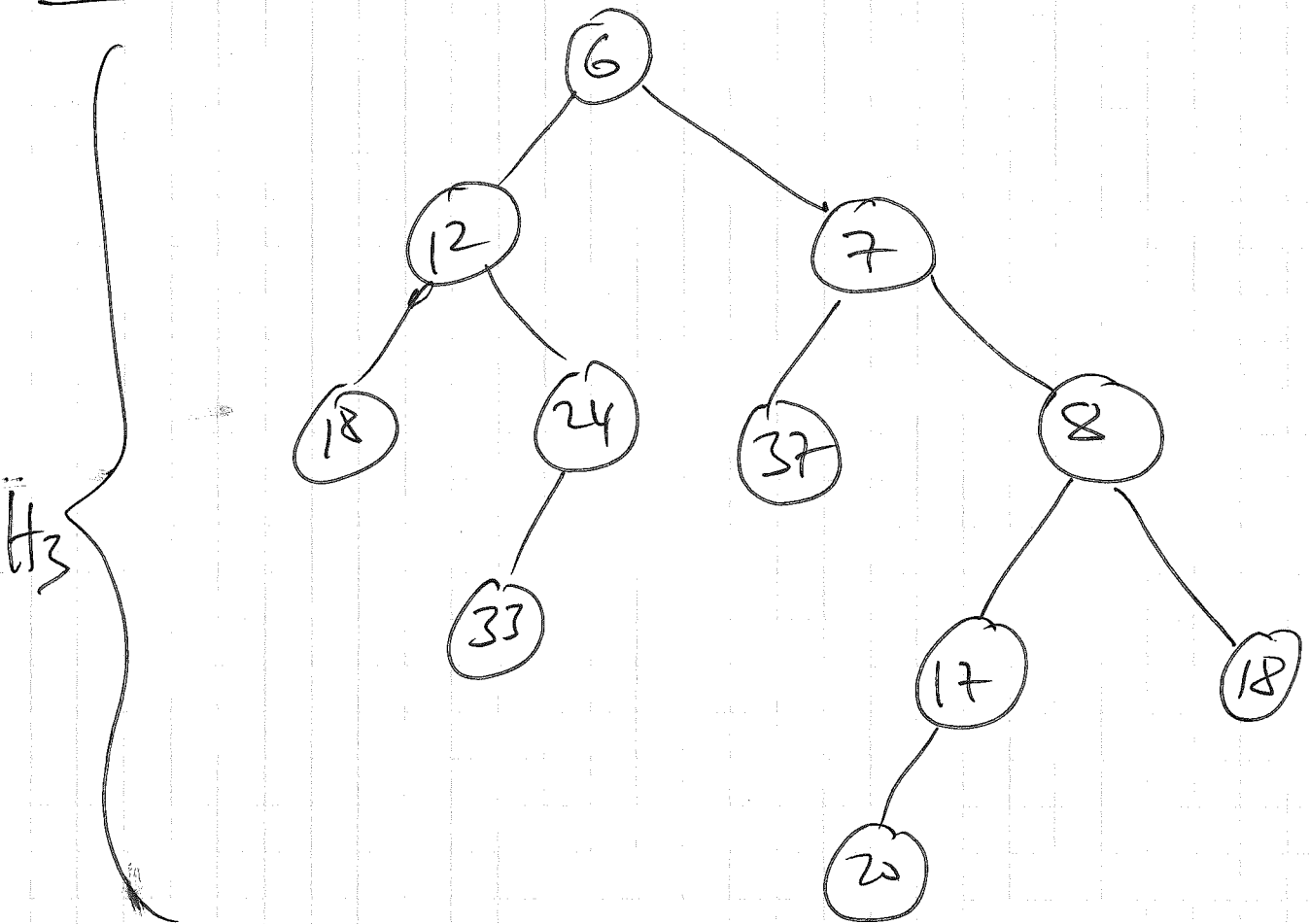
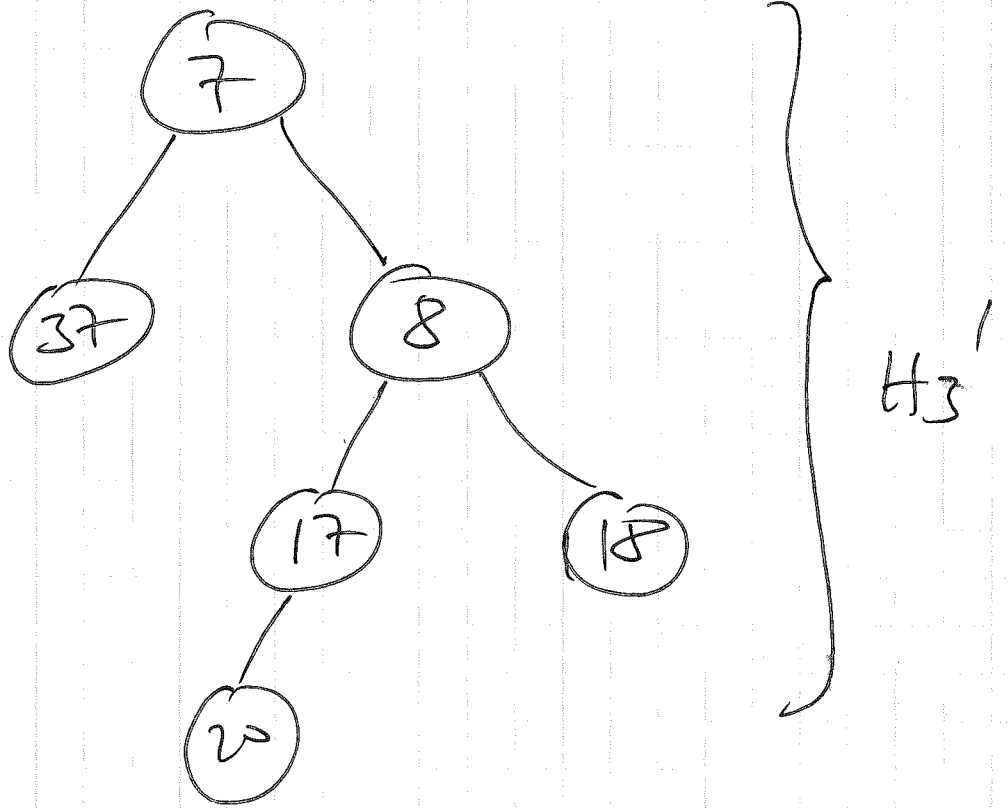


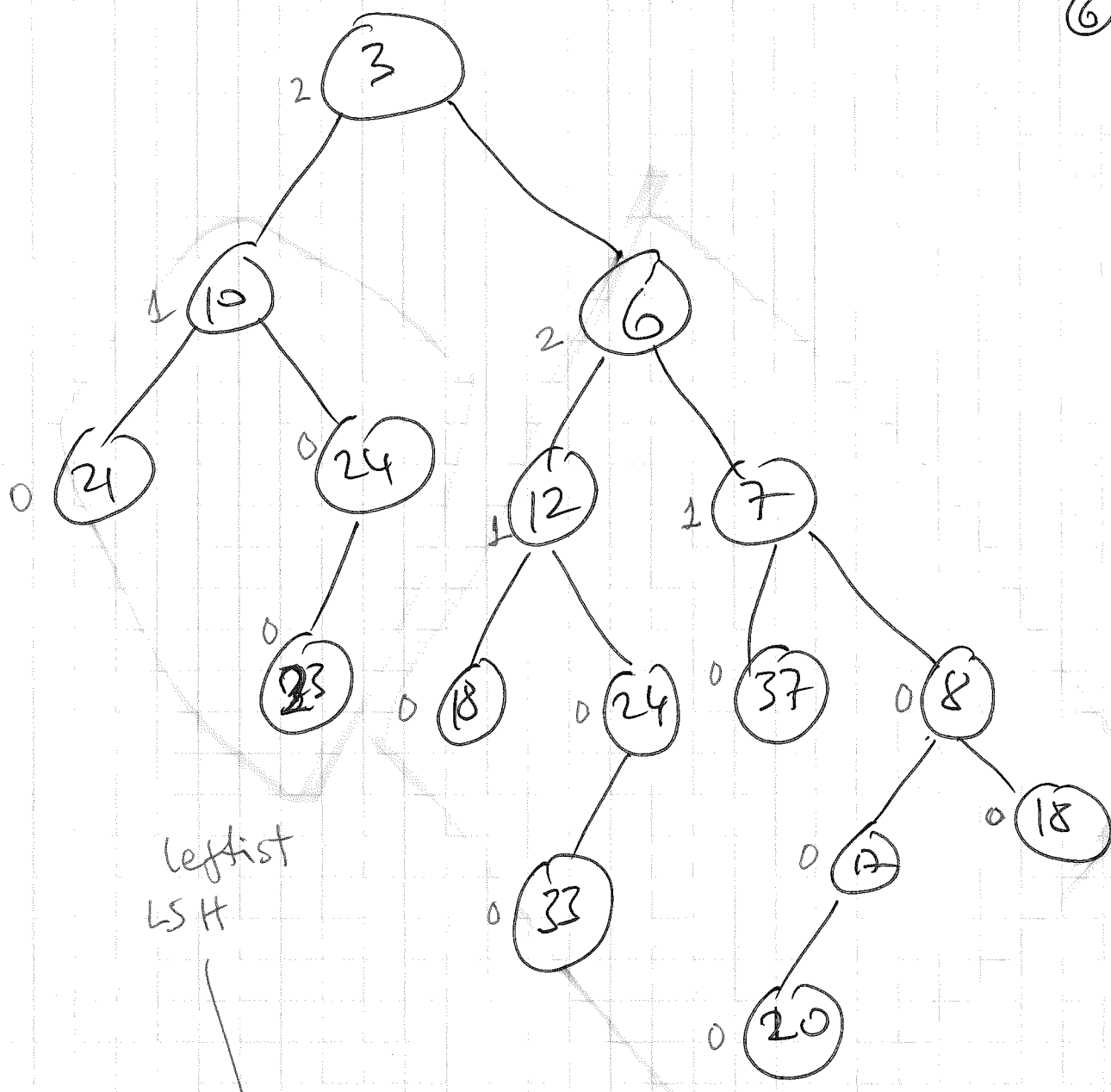
} H3'''



} H3''

5



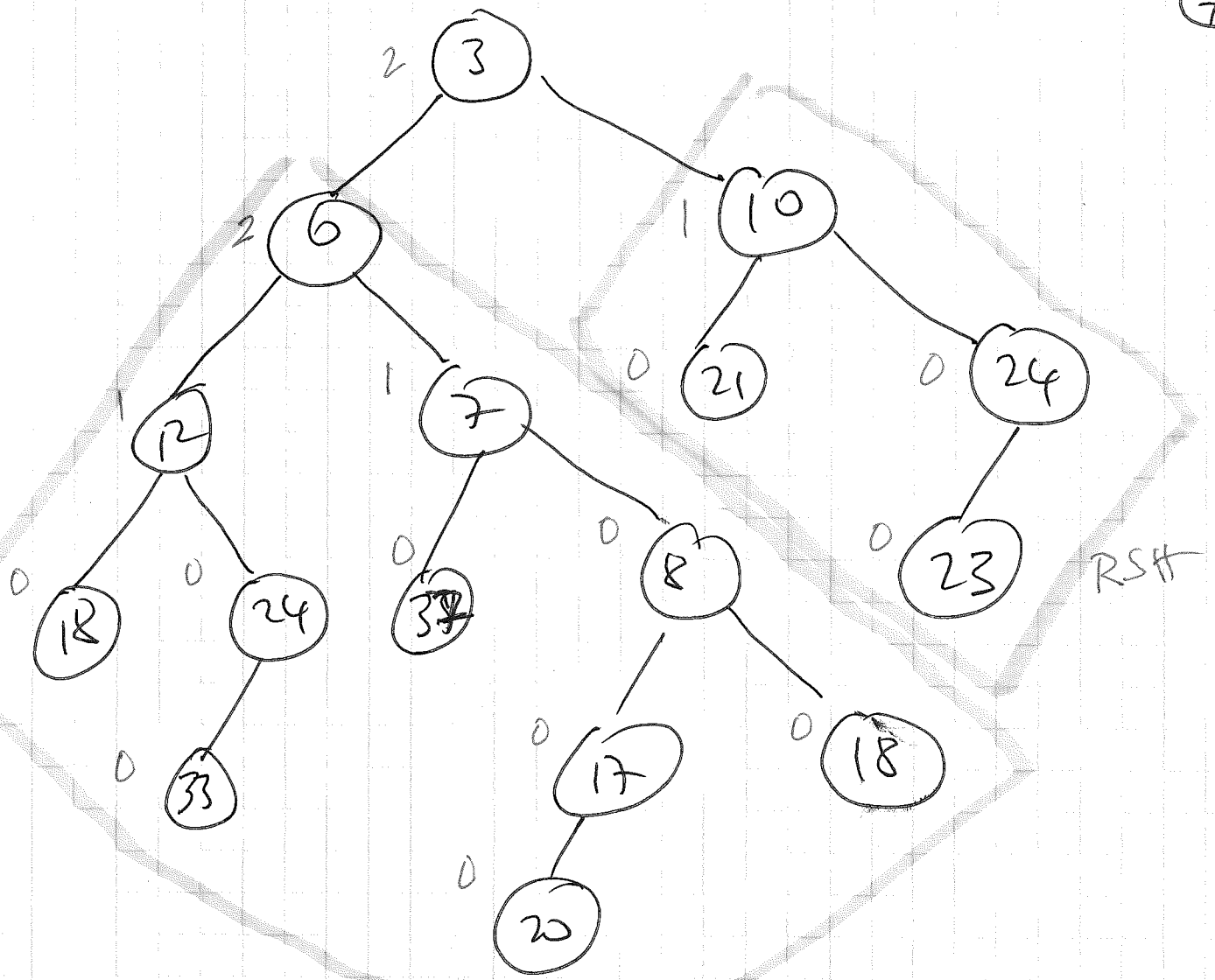


leftist  
LSH

leftist  
RSH

However  
The whole is not leftist

Swap LSH with RSH



LSH: leftist  
RSH: leftist  
The whole heap: leftist