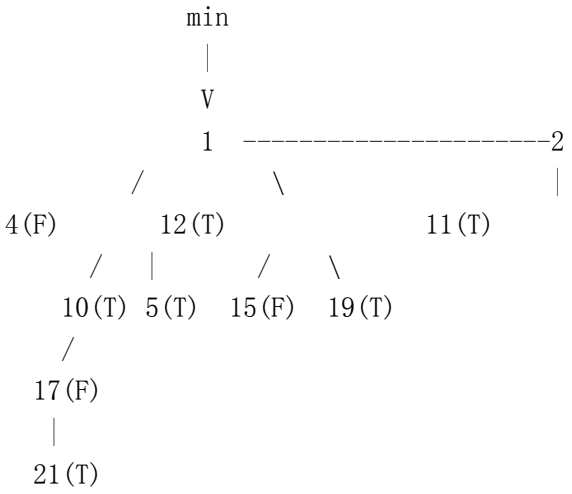
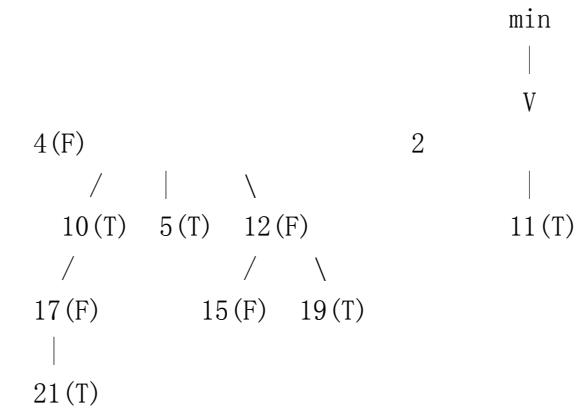
Exam02_solution
Summer , 2005

question 1.

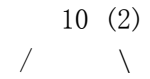
DecreaseKey operation by changing 9 by 2

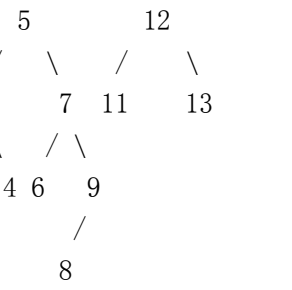


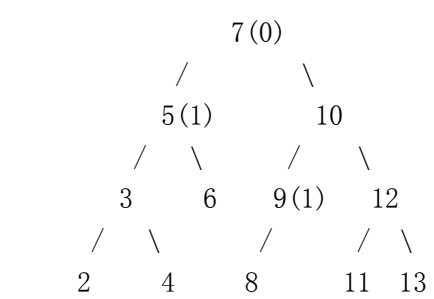
DeleteMin operation.



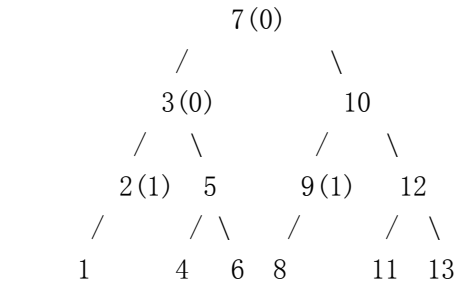
2)　　insert 8 (LR)





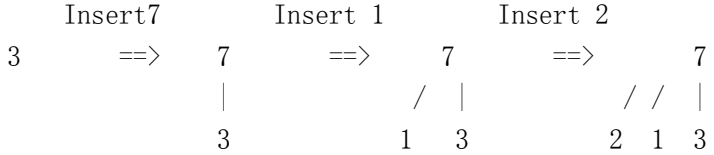


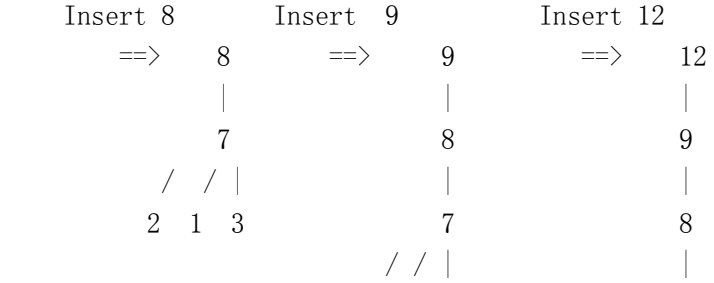
insert 1 (LL)

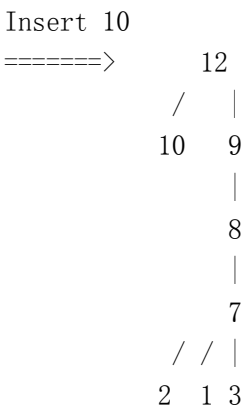


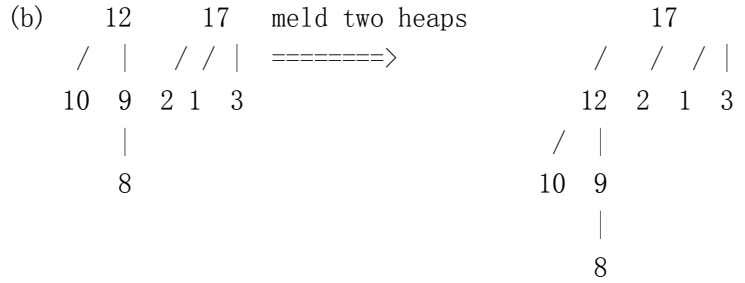
3)

(a) tree with smaller root becomes leftmost subtree.



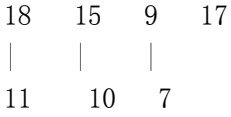




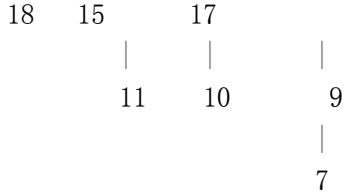


(c) two-pass meld after remove min

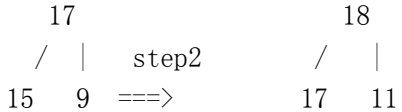
pass 1: start subtrees left to right.

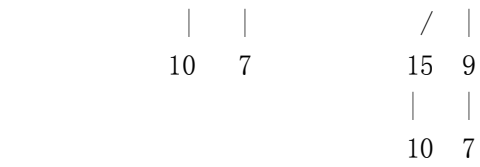


the number of subtrees was odd,
meld remaining original subtree with newly generated subtree.



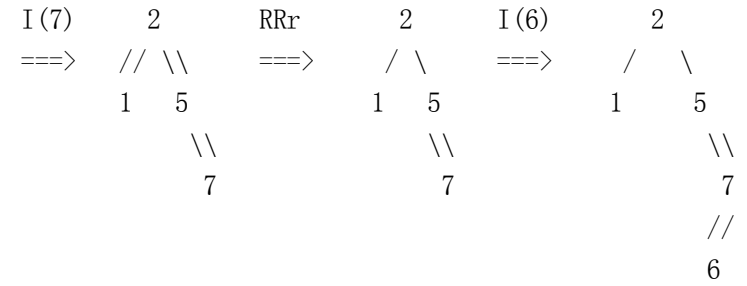
Pass 2: start with rightmost subtrees of pass 1

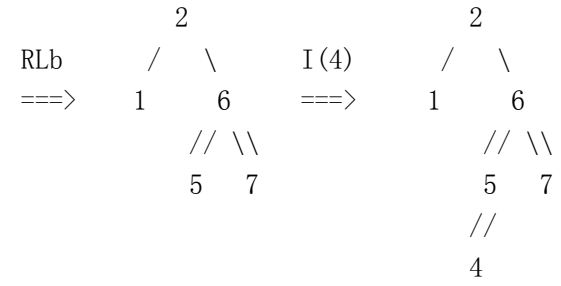


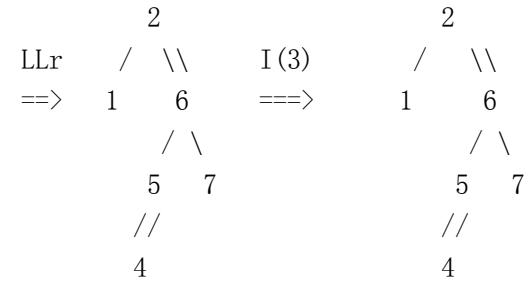


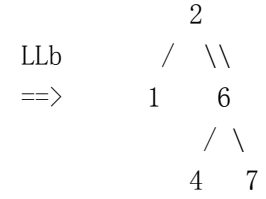
(4)

(a)









(b) if red node is deleted, then no rebalancing needed

delete 14