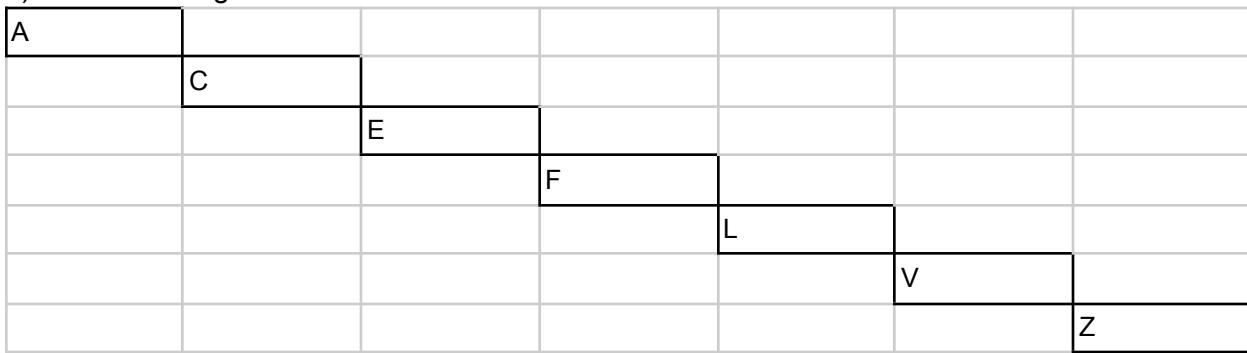


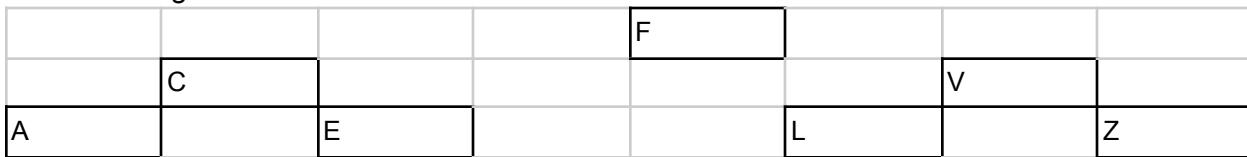
1) a. In figure 15-20, the inorder successor (or the treenode containing the value directly after the value in the root treenode) has to be 6, because it is the treenode that contains smallest value in the right subtree (which is the subtree containing values greater than the value stored in the root treenode).

b. The inorder predecessor of the root has to be the largest value in the left subtree; it is the value that comes directly before the root in the list. That node is 8; it is the greatest value in the left subtree because it is farthest to the right, so it has the largest value that is less than the value stored in the root treenode, so it comes directly before it.

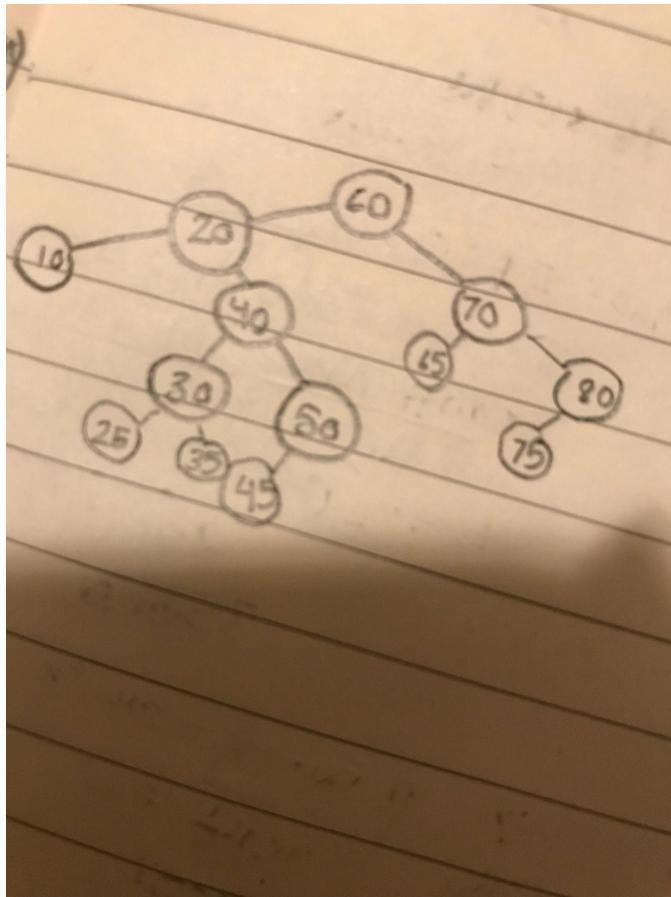
2) Maximum height: 7



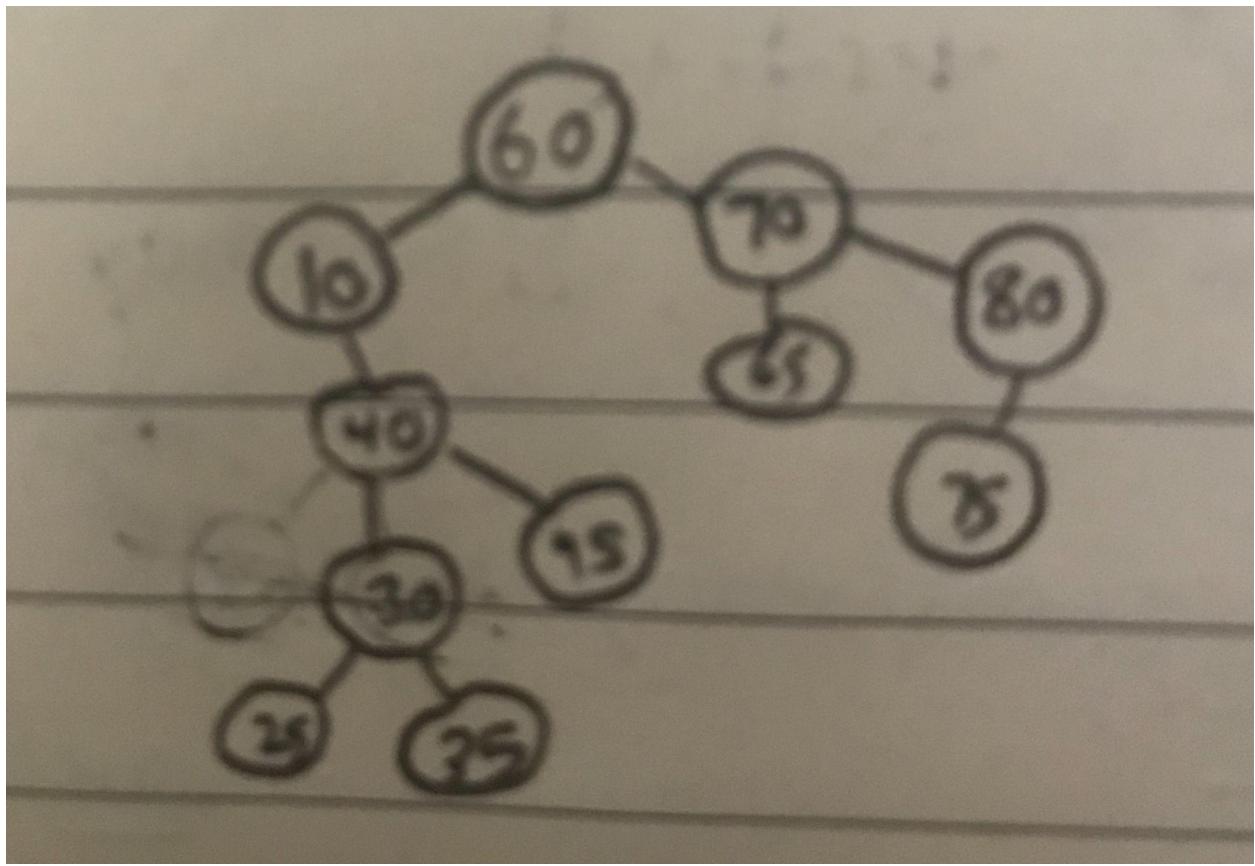
Minimum height: 3



3) a.

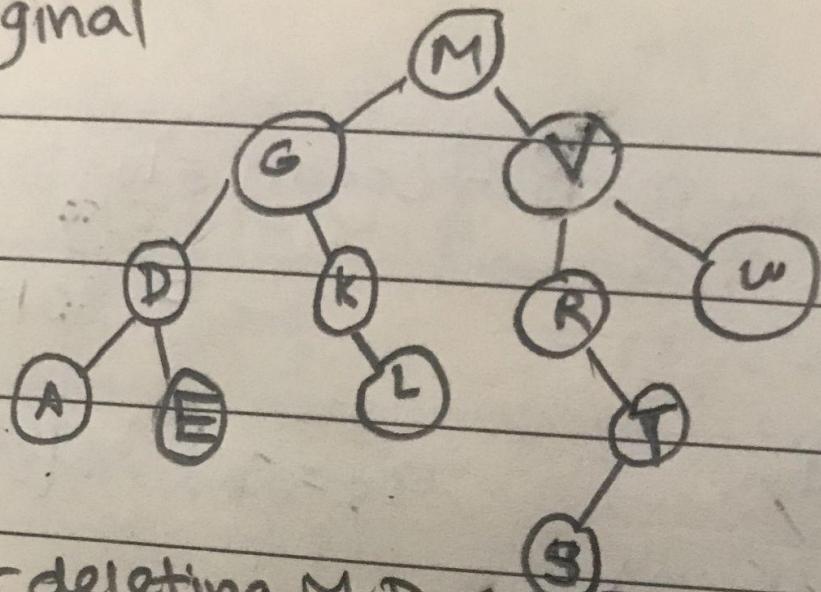


- b. After removing 50 and 20 (using the method of replacing the deleted node with the node containing the largest item in the left subtree)

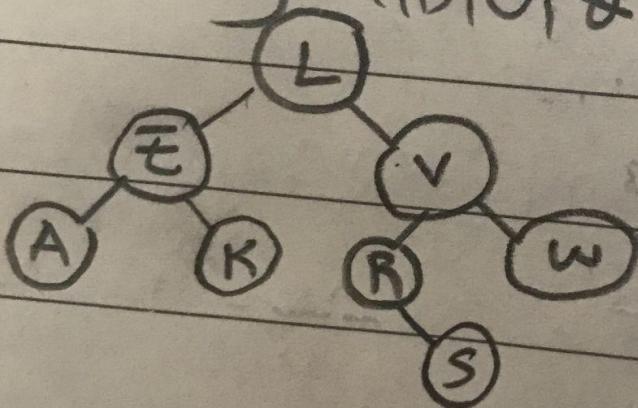


4)

original



After deleting M,D,G,&T



5) Removing and inserting the same item back into a binary search tree will change its structure, because it will not necessarily be inserted back where it originally was prior to the deletion.