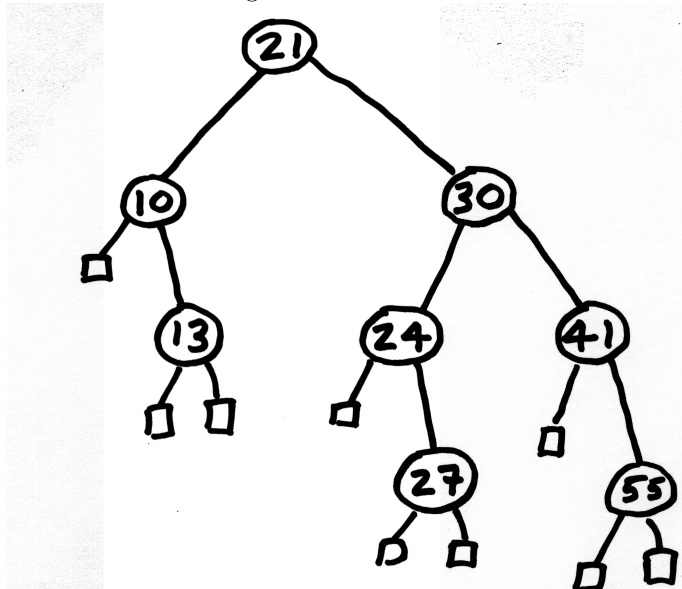


An AVL tree example

Consider the tree T given below.



1. Verify that T is an AVL tree (i.e. that it satisfies the so-called height balance property).
2. For each of the sequences of inputs below, begin with the tree T and insert the items in the order given. Show each tree after you insert an item. Each of these intermediate trees should also be AVL trees.
For each sequence, start over again with the original tree T .
 - (a) 15, 12, 50, 49
 - (b) 15, 50, 29, 12
 - (c) 12, 15, 20, 60
 - (d) 60, 12, 20, 15
3. Do the same as above, but instead *delete* the vertices as shown in the order given. Again, any intermediate trees should also be AVL trees.
 - (a) 10
 - (b) 27, 41