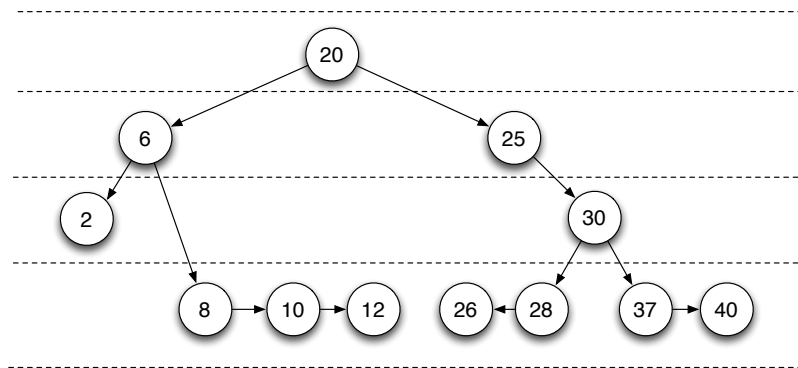
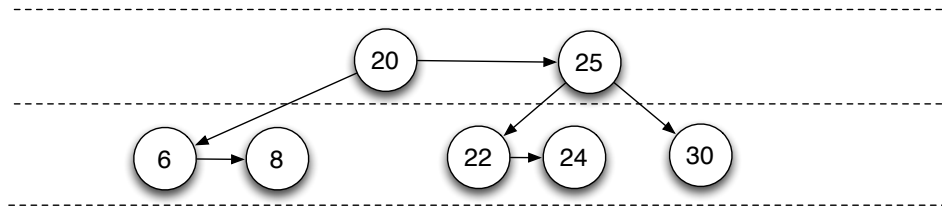


For the following AA tree



List which nodes are invalid and briefly specify the reason.

For the following AA tree



- Indicate in the figure above where a node with value of 13 would *initially* be inserted, i.e. before any rebalancing operations are performed.
- Show the rebalanced AA tree after insertion of 13. List the sequence of intermediate steps performed along with which node the step operates on - even if they perform no modifications - but only redraw the tree when adjustments occur (you may use triangles to represent unaltered subtrees).