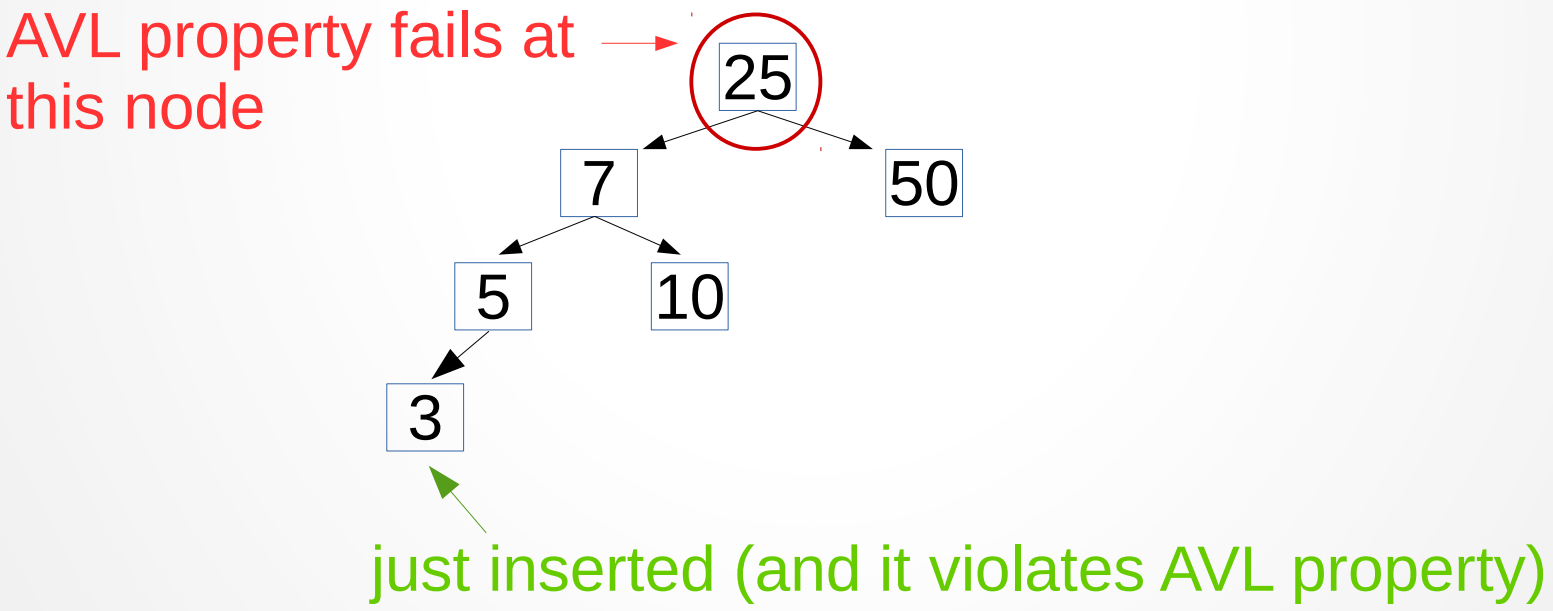
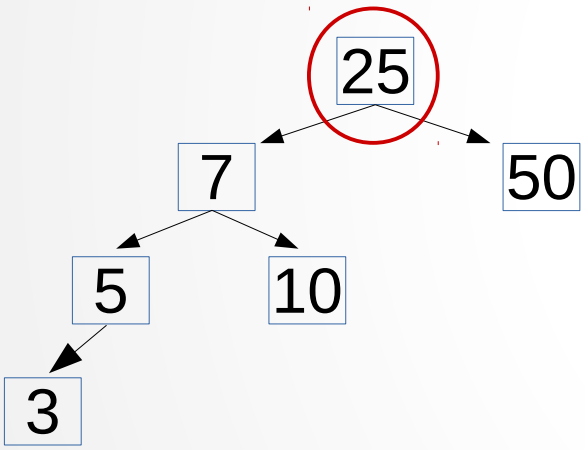
CSI33: AVL trees in-class practice

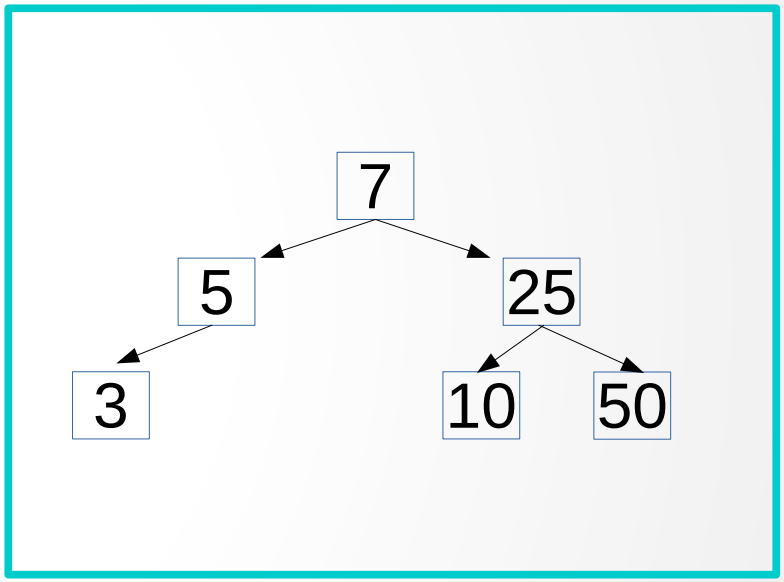
1) Consider the tree below. The AVL property is violated at the root. This happened after value 3 was inserted into the tree. Re-balance the tree.



CSI33: AVL trees in-class practice

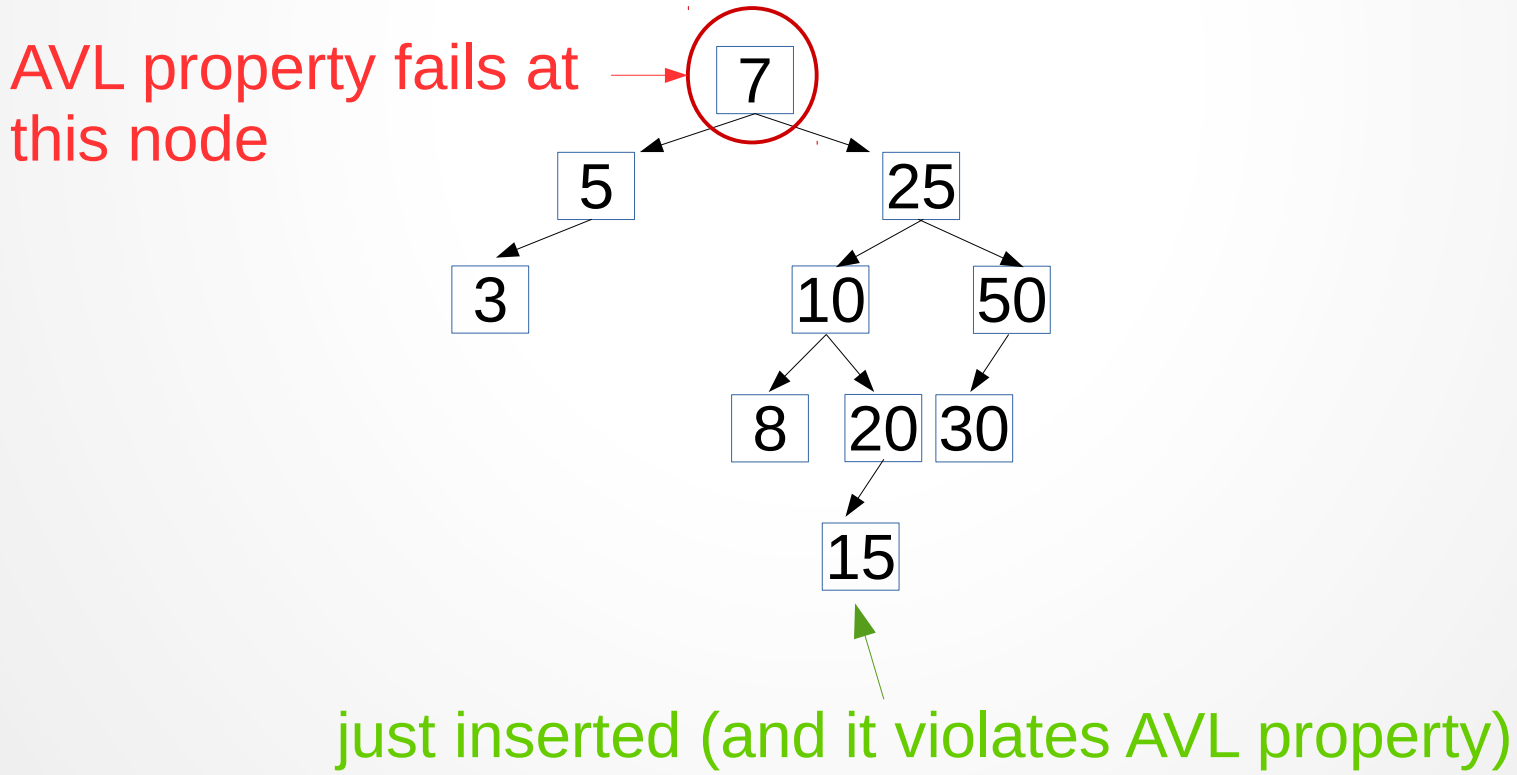


single
right
rotation



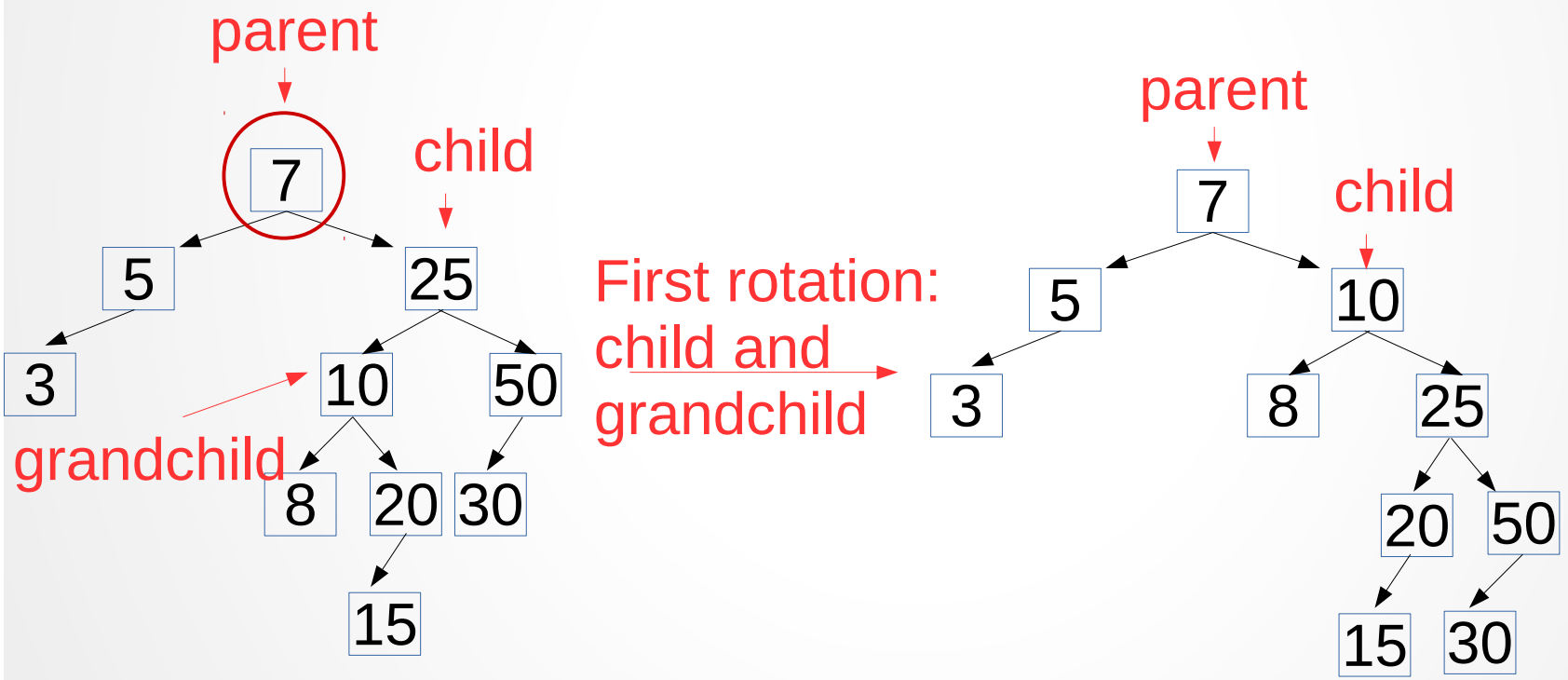
CSI33: AVL trees in-class practice

2) Consider the tree below. The AVL property is violated at the root. This happened after value 15 was inserted into the tree. Re-balance the tree.



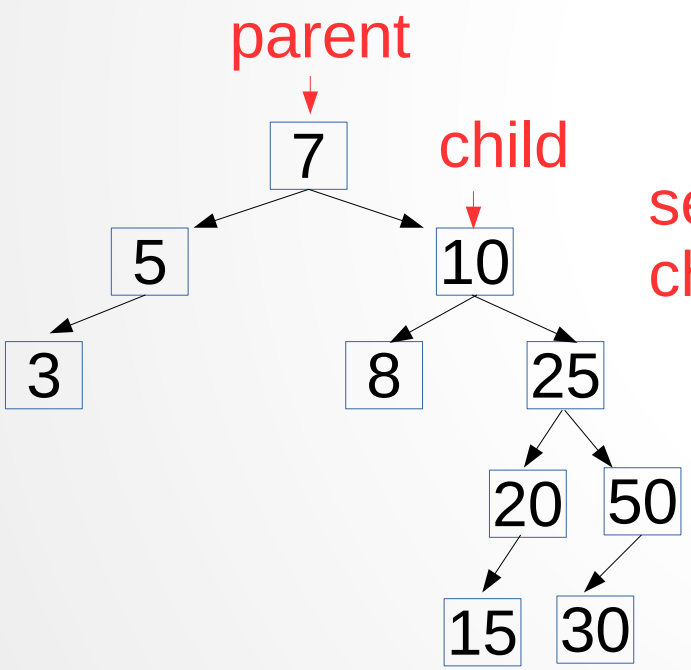
CSI33: AVL trees in-class practice

2) Consider the tree below. The AVL property is violated at the root. This happened after value 15 was inserted into the tree. Re-balance the tree.

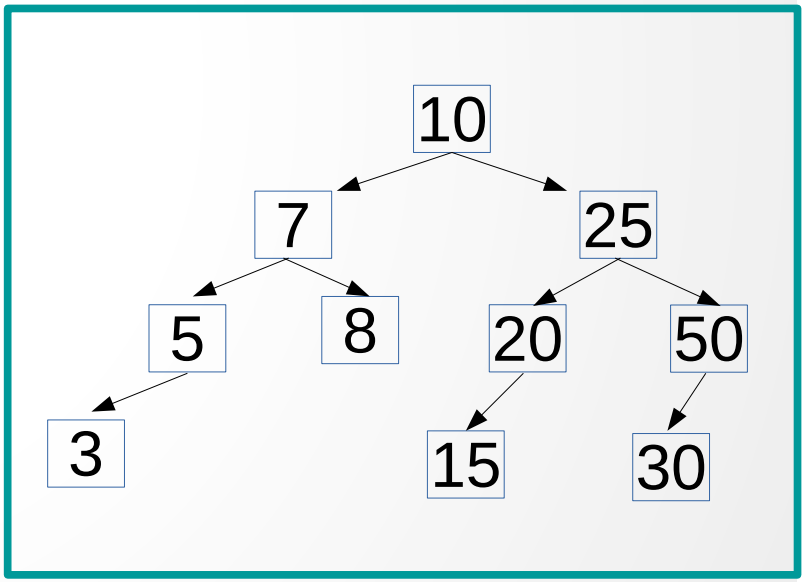


CSI33: AVL trees in-class practice

2) Consider the tree below. The AVL property is violated at the root. This happened after value 15 was inserted into the tree. Re-balance the tree.

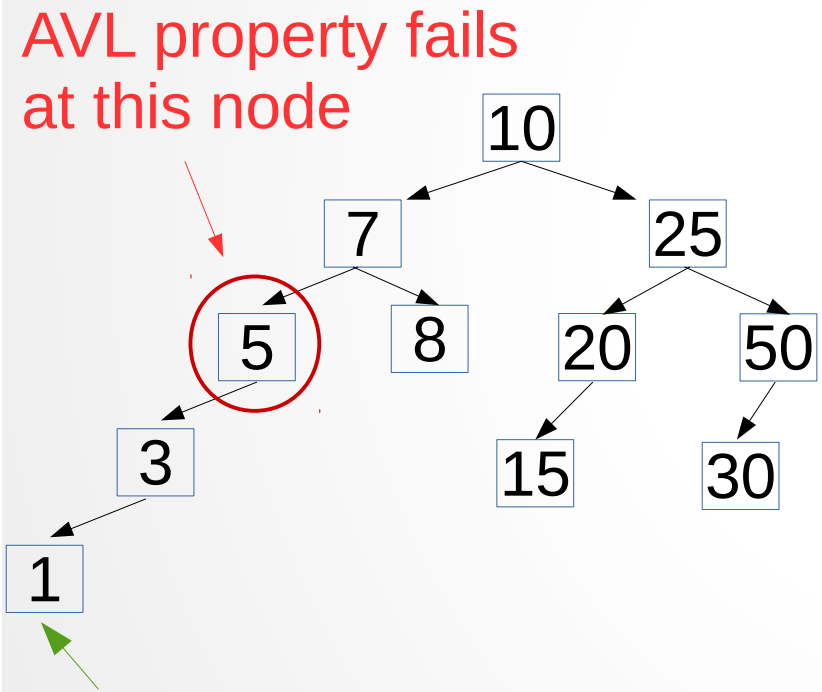


second rotation:
child and parent



CSI33: AVL trees in-class practice

3) Consider the tree below. The AVL property is violated at the node with value 5. This happened after value 1 was inserted into the tree. Re-balance the tree.



CSI33: AVL trees in-class practice

3) Consider the tree below. The AVL property is violated at the node with value 5. This happened after value 1 was inserted into the tree. Re-balance the tree.