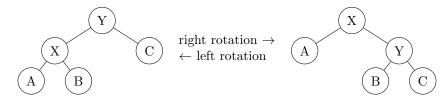
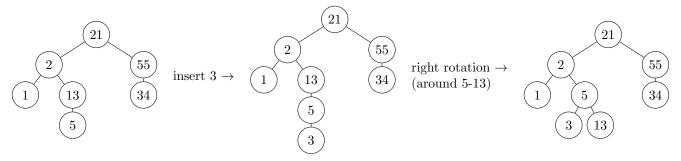
## Lecture 07

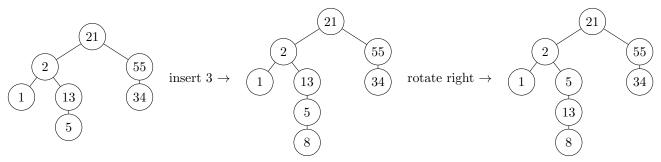
## **AVL Trees**



- Three references to change: parent's left/right, y.left, x.right
- $\bullet$  Decreases depth of subtree A, increases depth of subtree C



- computing height takes time  $\Theta(s)$  where s= size of subtree
- instead, have each node store node.height (for subtree rooted at node)



Problem: rotation does not fix balance  $\rightarrow$  double rotation!

