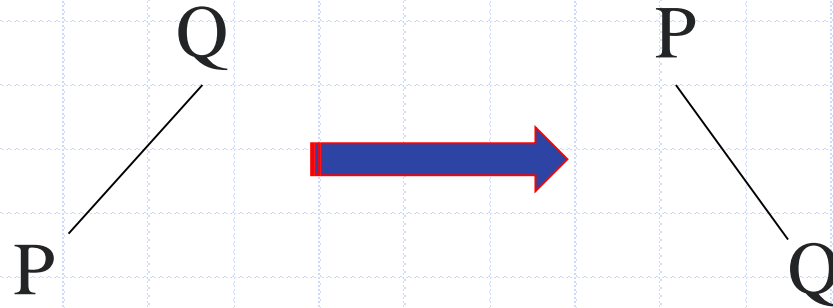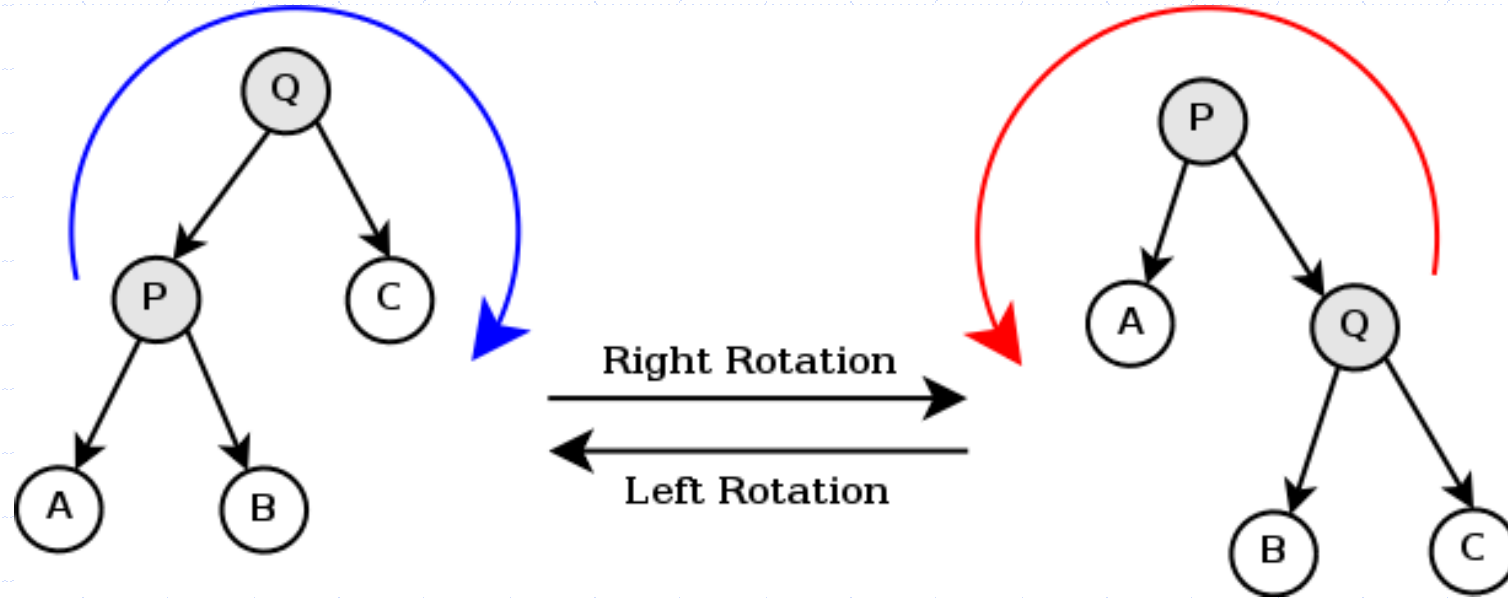# Binary Tree Rotation (Left or Right)

Let P be Q's left child. Set P to be the new root." Basically that's the description of the rotation to the **right** or clockwise:

Q   ⟶   P

P   Q

Binary Tree Rotation (Left or Right)
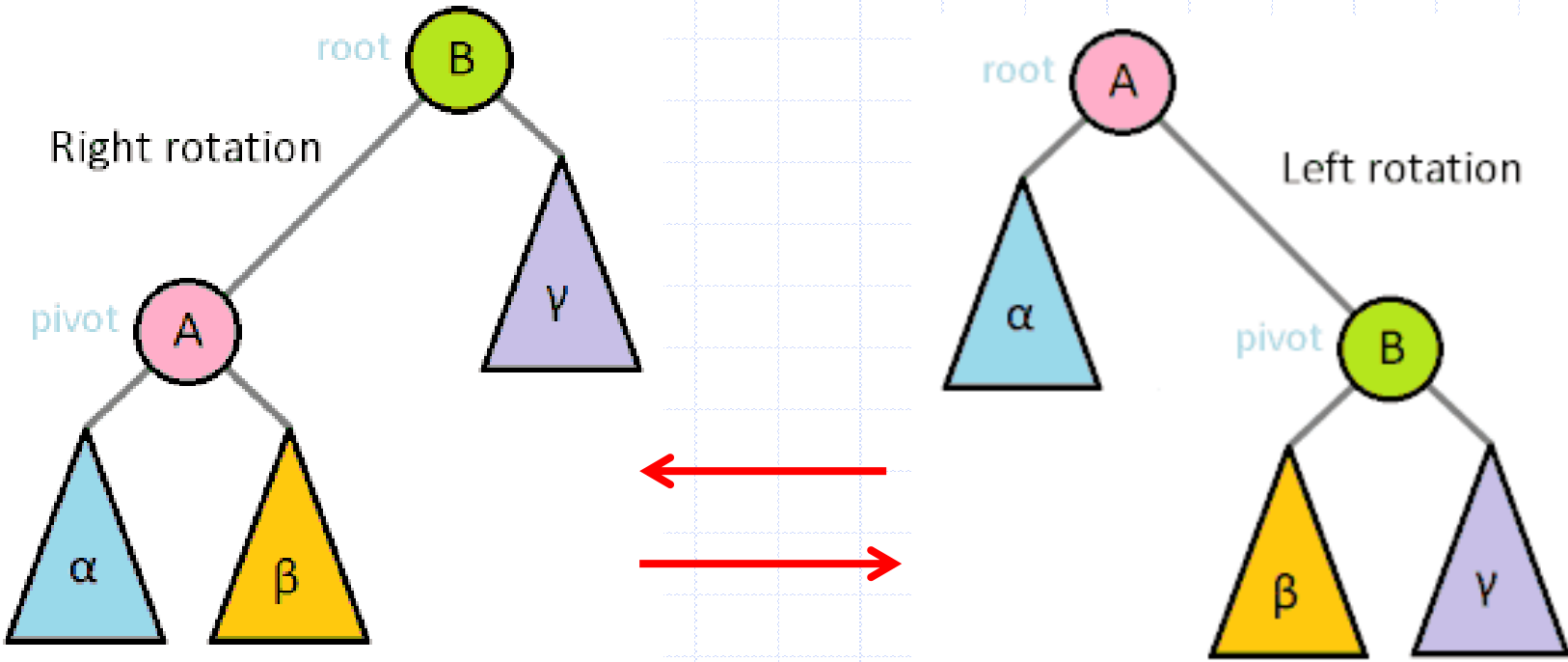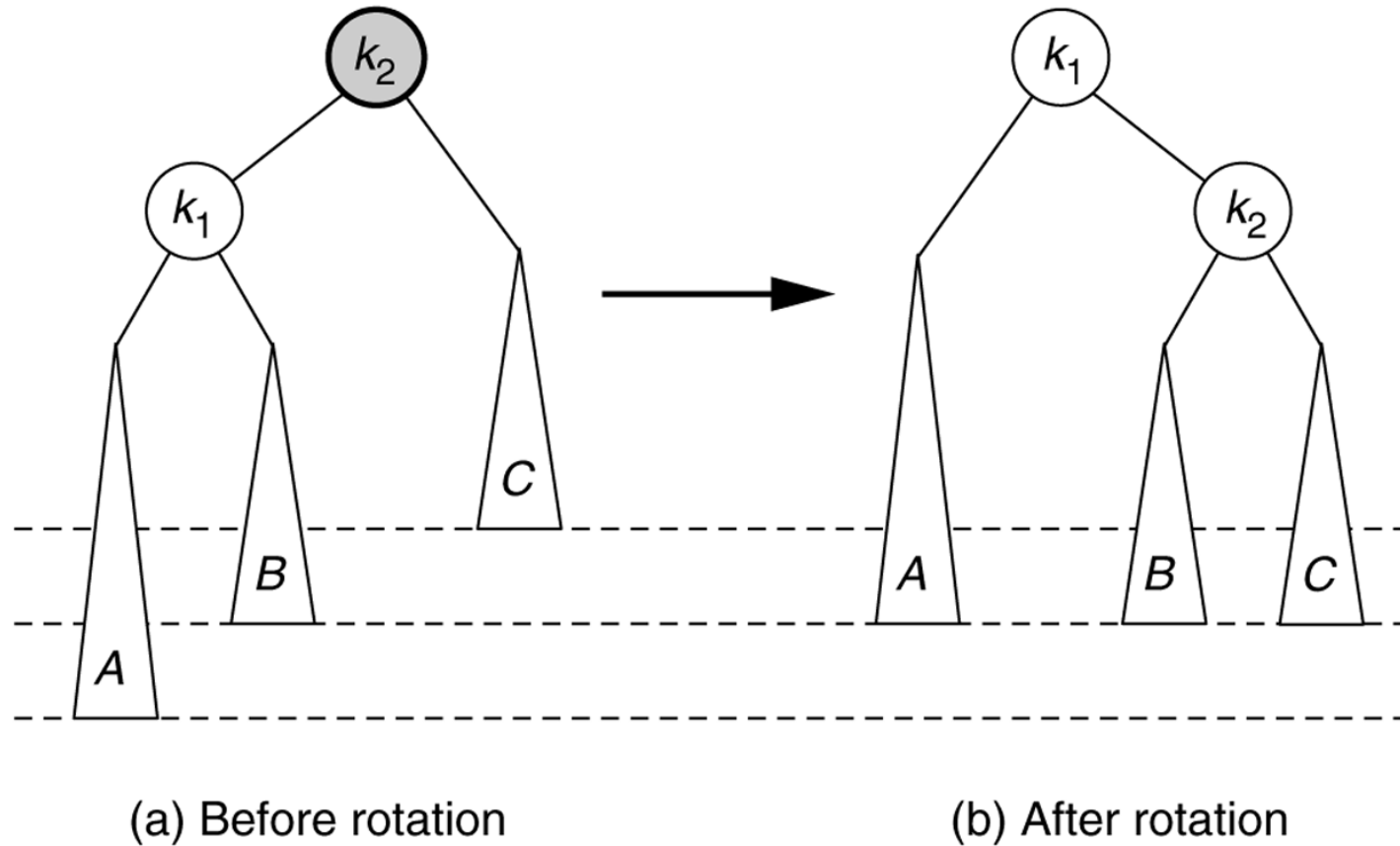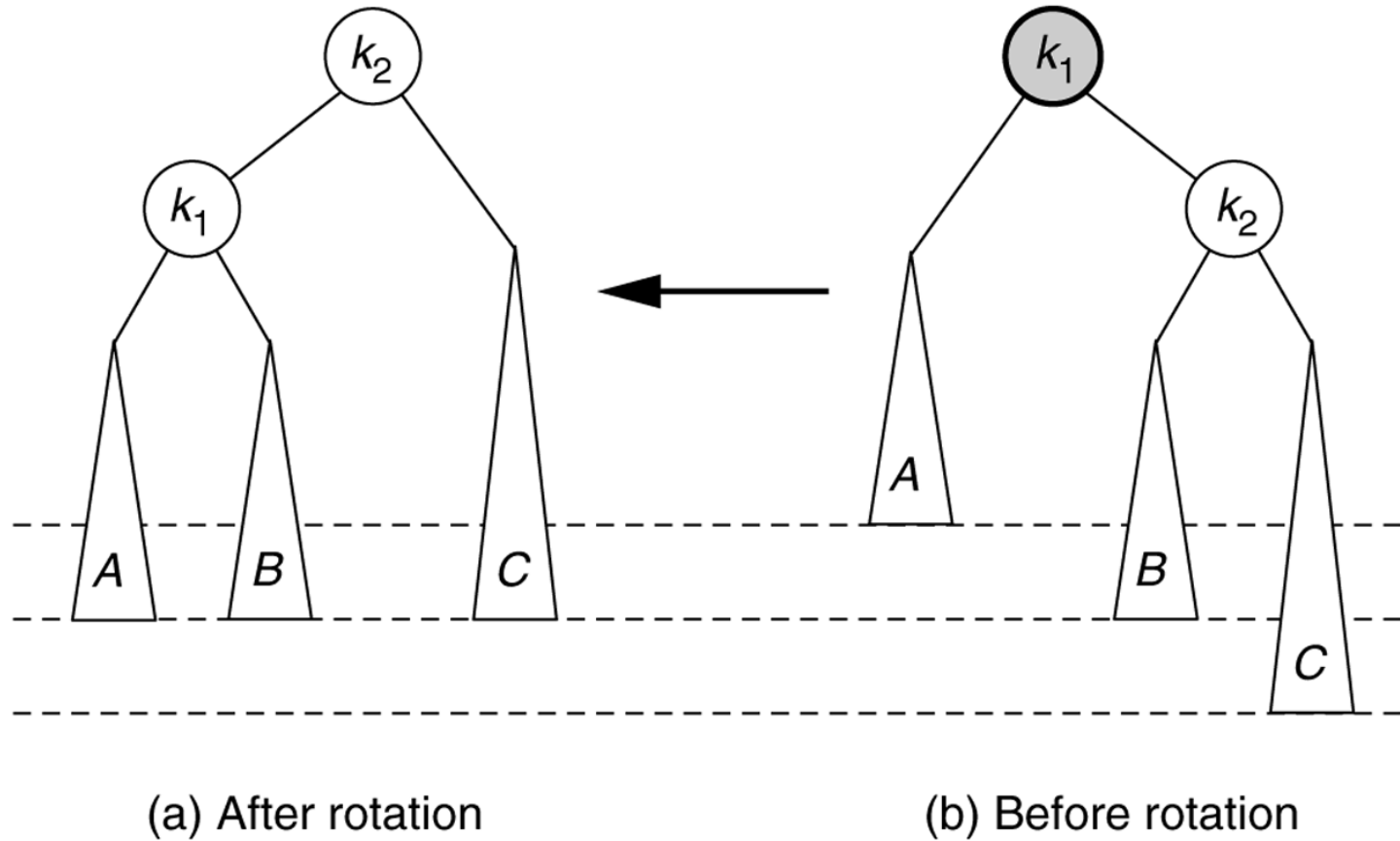

Right Rotation

Left Rotation

Binary Tree Rotation (Left or Right)

▸ **right rotation** (clockwise): left child becomes parent; original parent demoted to right

(a) Before rotation

(b) After rotation

▸ **left rotation** (counter-clockwise): right child becomes parent; original parent demoted to left

(a) After rotation   (b) Before rotation

Left rotation, steps

1. detach right child (70)'s left subtree (60) (don't lose it!)
2. consider right child (70) be the new parent
3. attach old parent (50) onto left of new parent (70)
4. attach old right child (70)'s old left subtree (60) as right subtree of new left child (50)