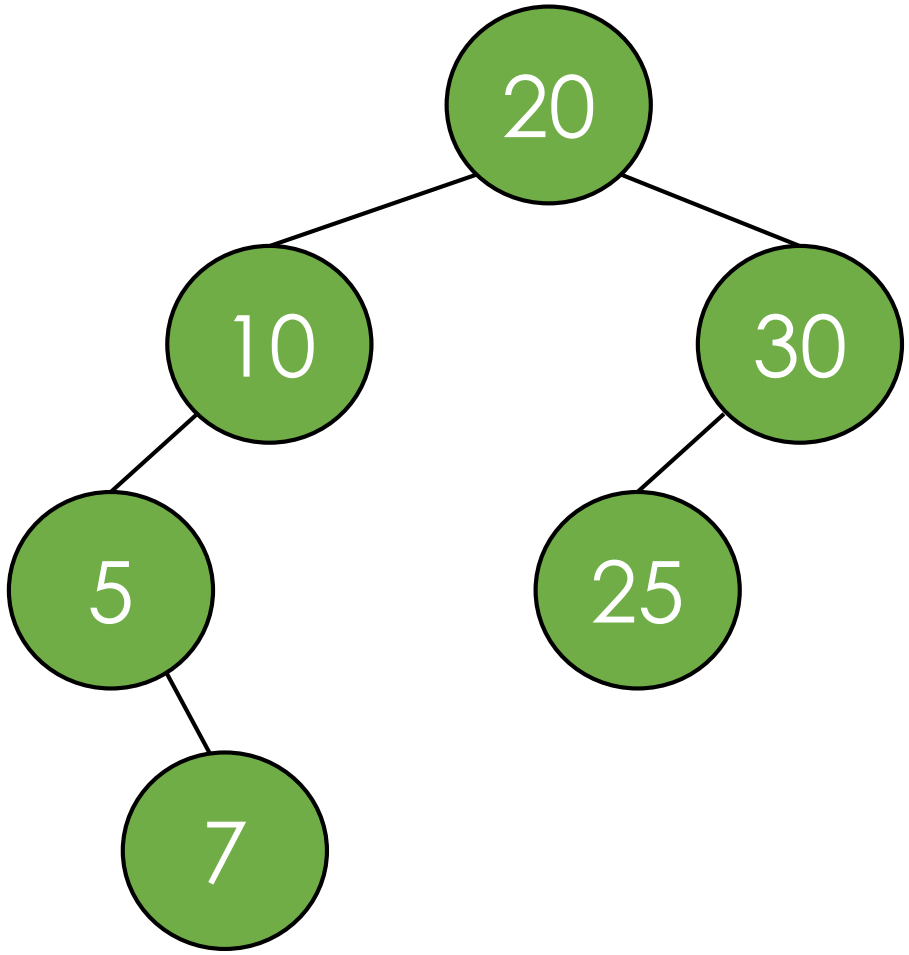
# Binary Search Trees: Delete

# By the end of this video you will be able to…

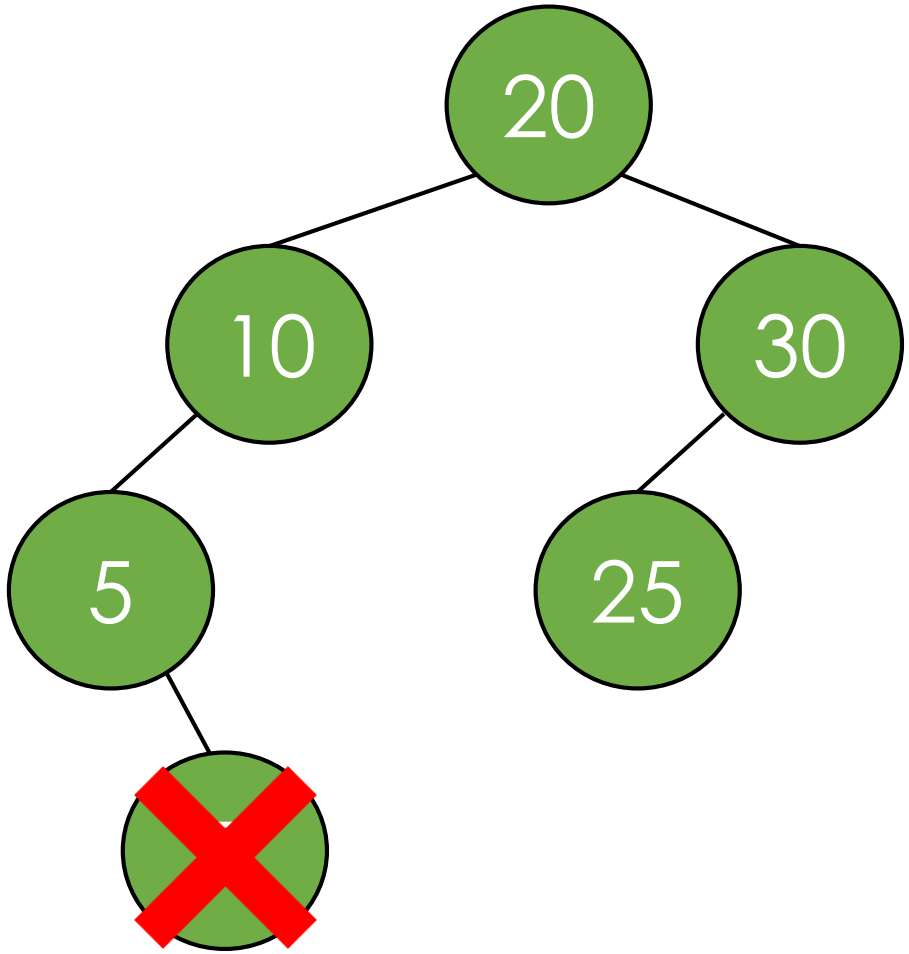
- Delete an item from a Binary Search Tree

# BST - Deletion




**Delete 7**

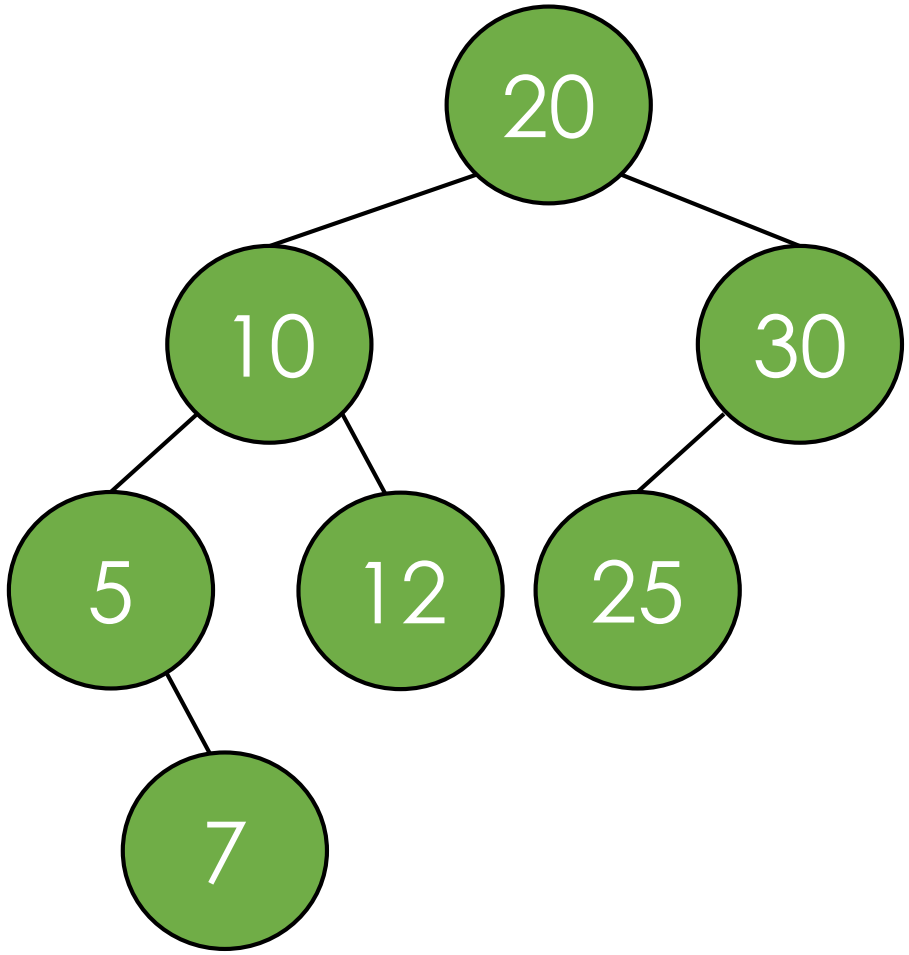
# BST - Deletion




**Delete 7**

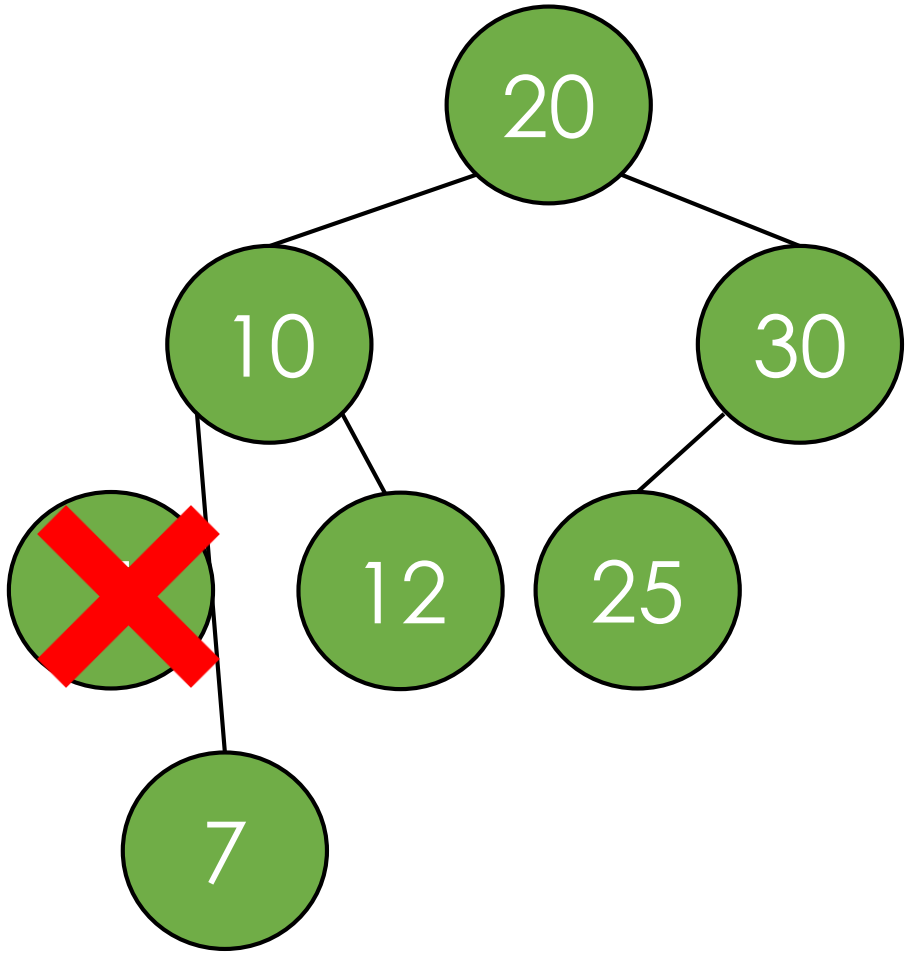
**If leaf node: Delete parent's link 7**

# BST - Deletion




**Delete 5**

# BST - Deletion

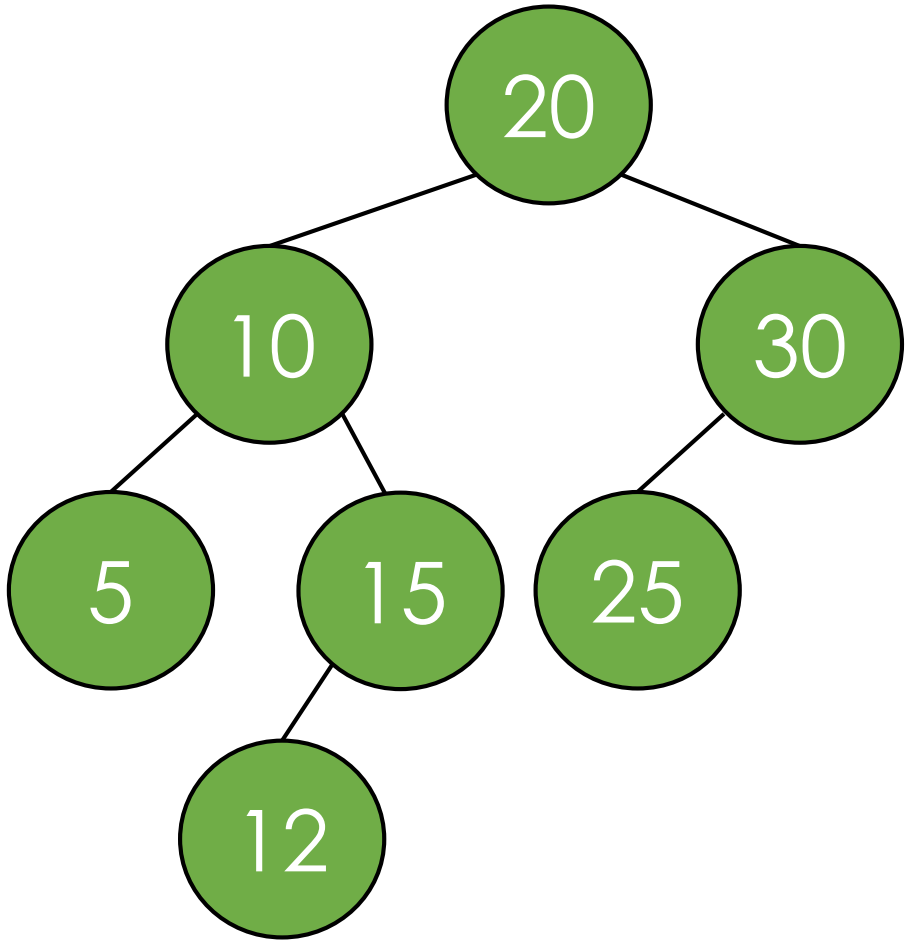



**Delete 5**

**If only one child, hoist child**

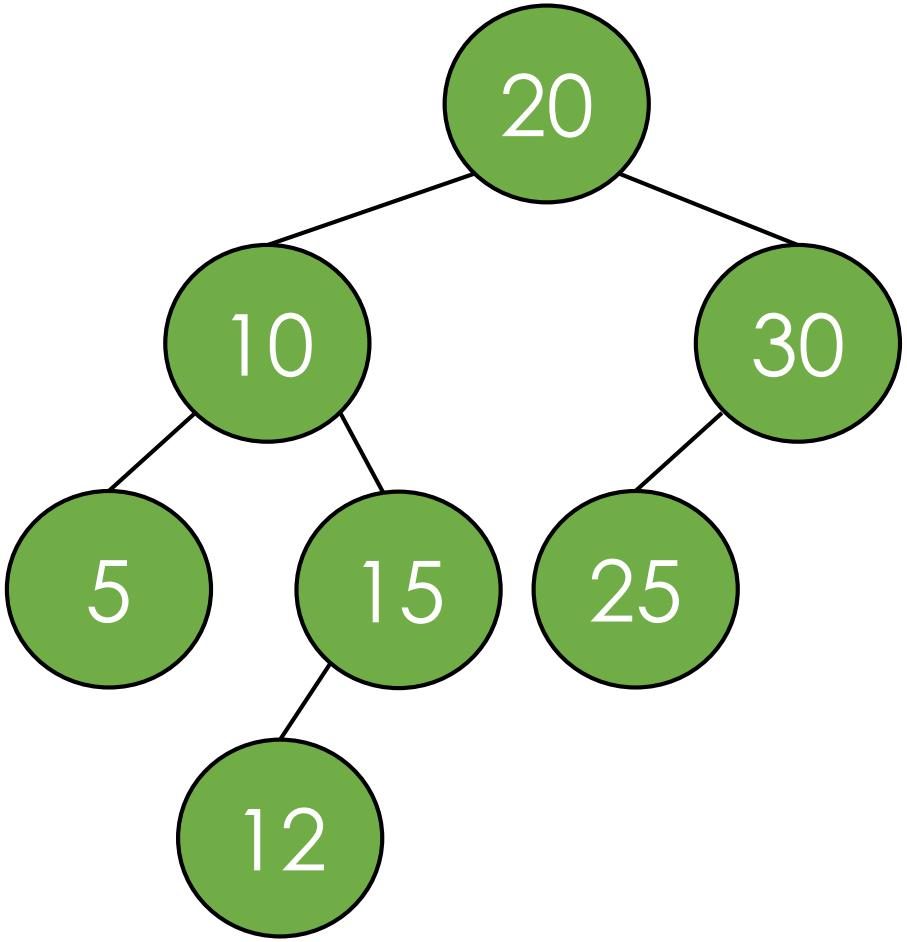
# BST - Deletion

**Delete 10**



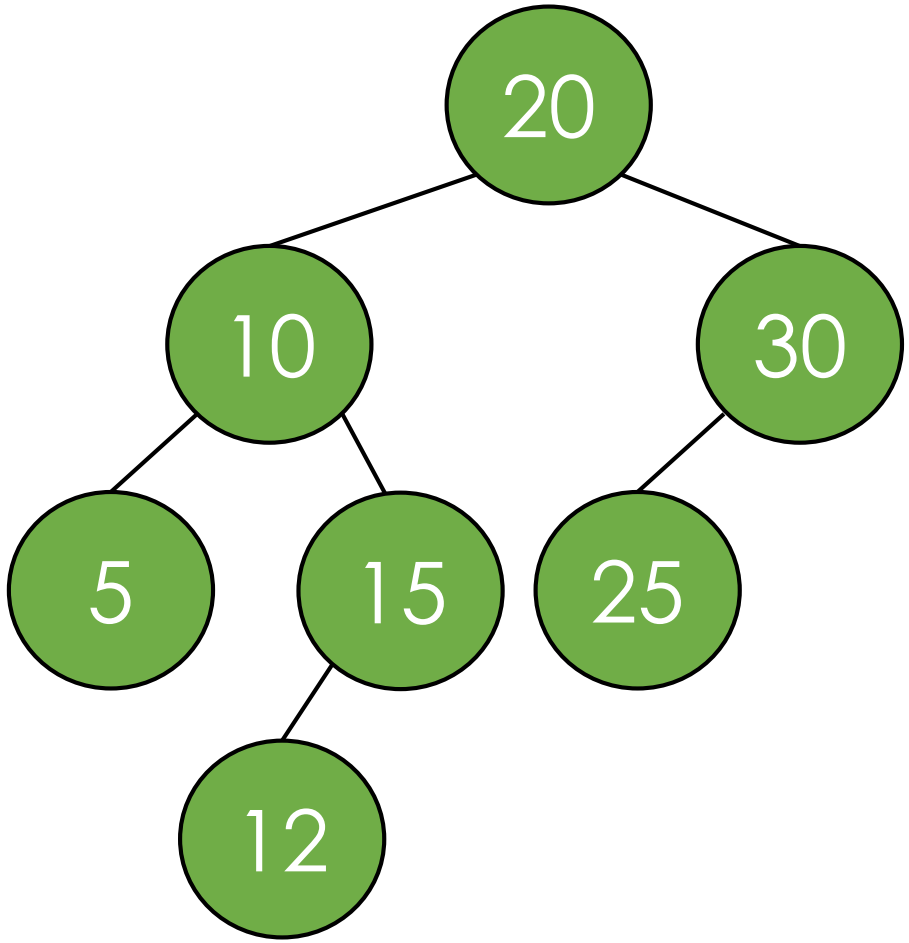
# BST - Deletion

**Delete 10**

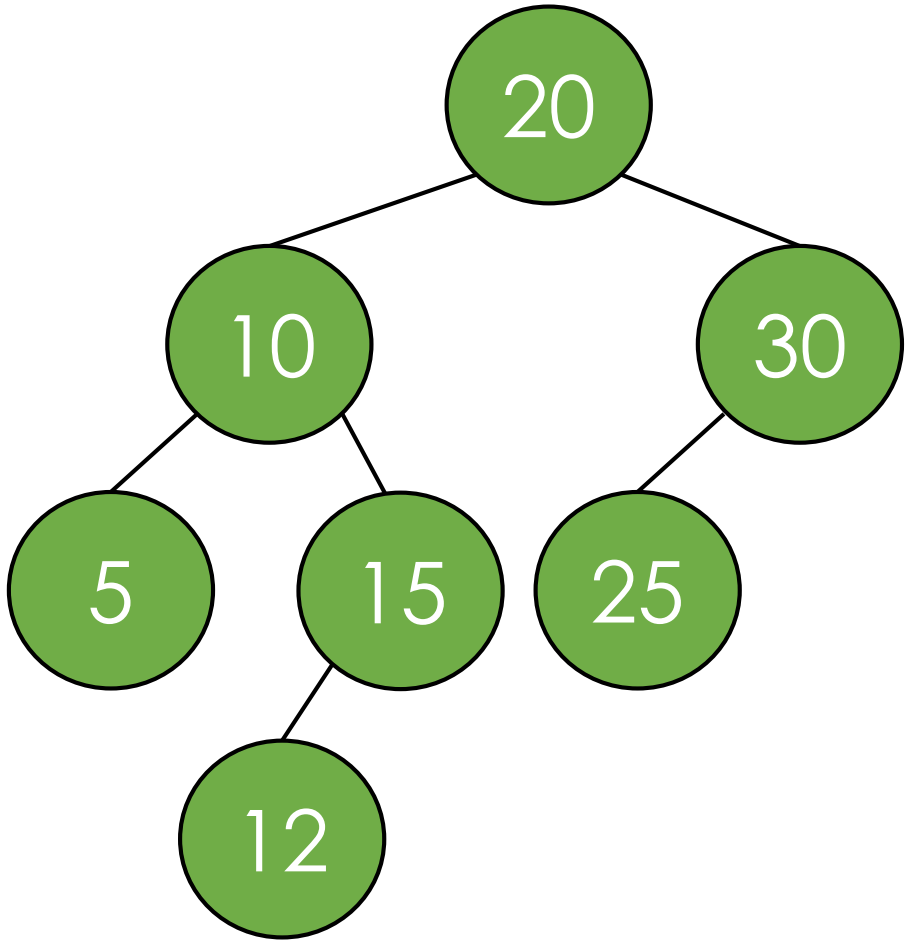



# BST - Deletion

**Delete 10**



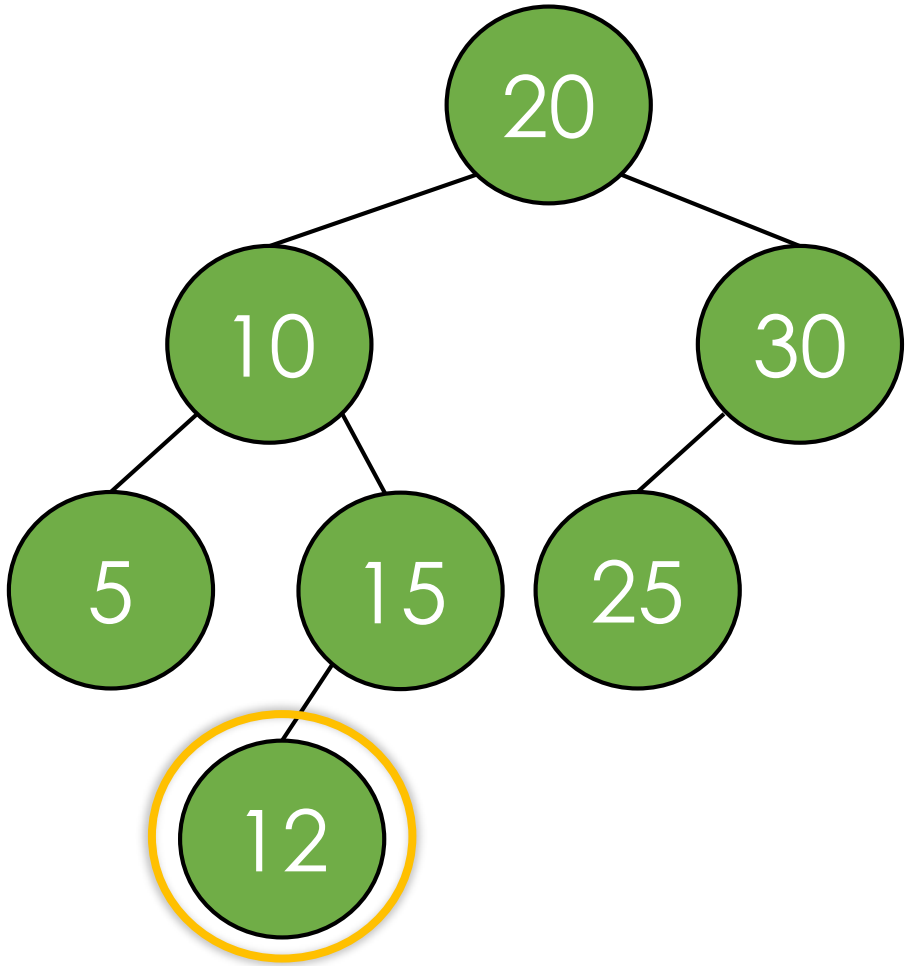
# BST - Deletion




**Delete 10**

**When a deleted node has two children, this gets tricky.**

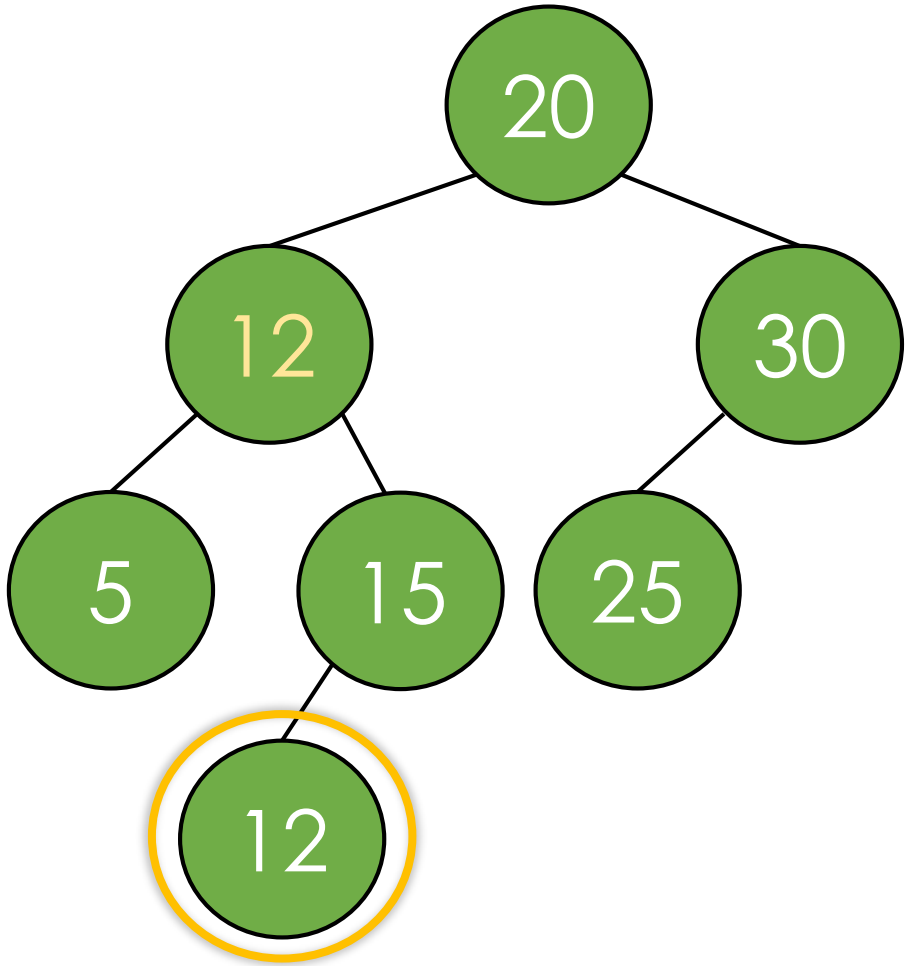
# BST - Deletion




**Delete 10**

**Find smallest value in right subtree**

# BST - Deletion

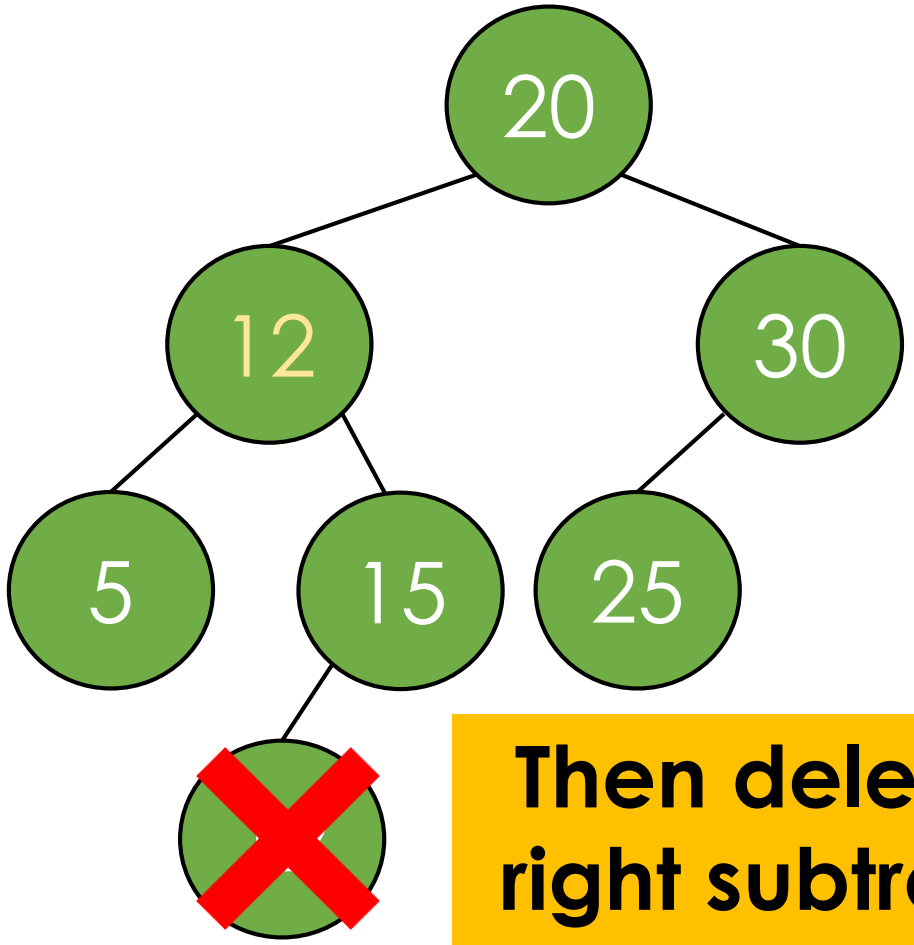



**Delete 10**

**Find smallest value in right subtree**

**Replace deleted element with smallest right subtree value**

# BST - Deletion




**Delete 10**

**Find smallest value in right subtree**

**Replace deleted element with smallest right subtree value**

**Then delete right subtree duplicate (12)**

# In this lesson you have:

- Learned how to create Trees
- Explored different traversal options
- Worked Closely with Binary Search Trees
  - Search, Insert, and Delete