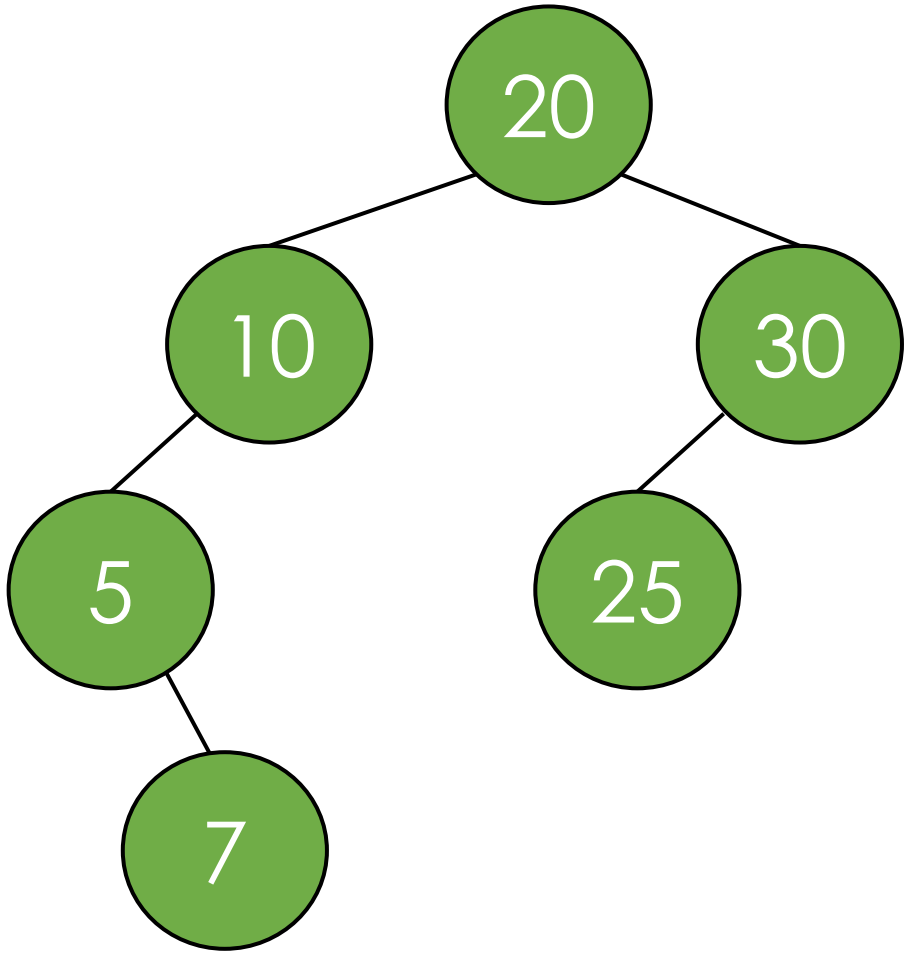
Binary Search Trees: Delete

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

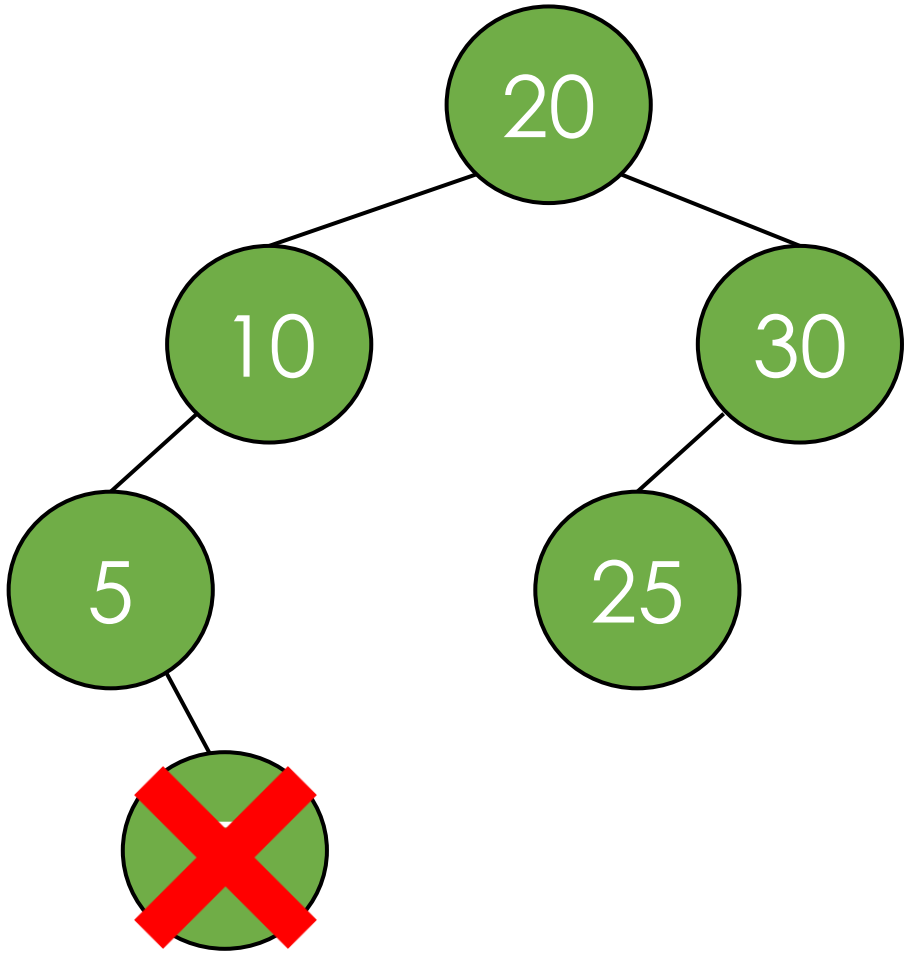
- Delete an item into a Binary Search Tree

BST - Deletion



Delete 7

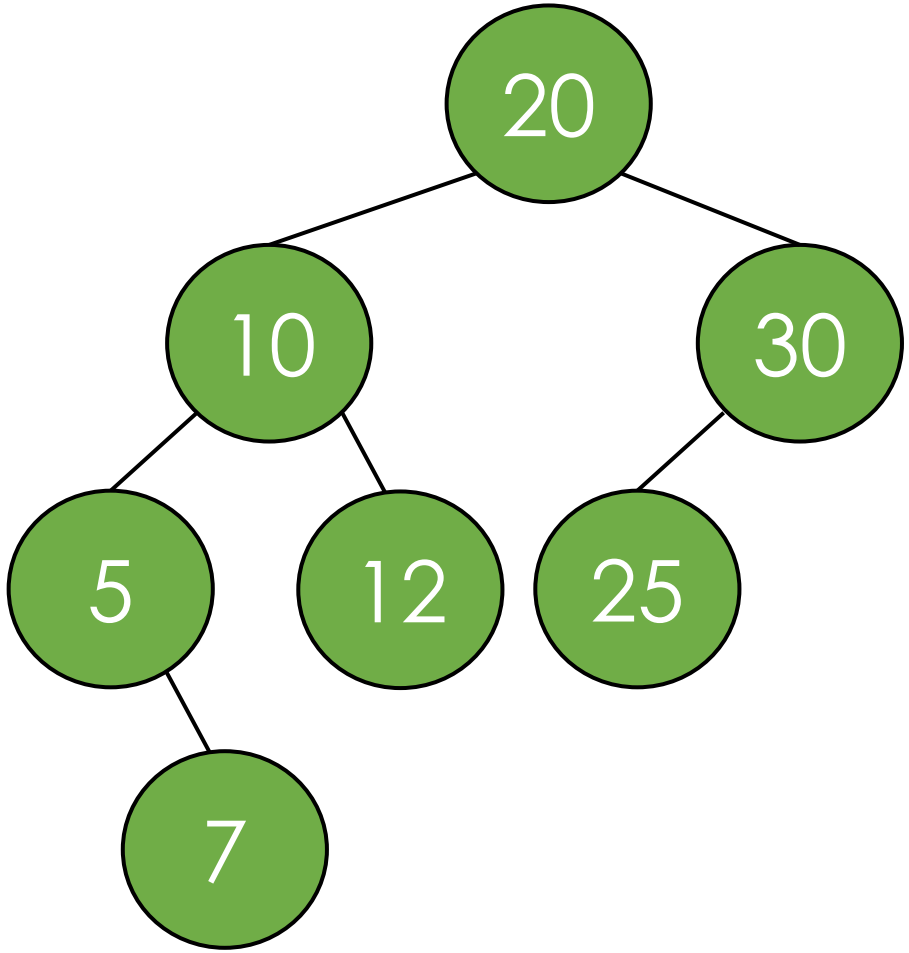
BST - Deletion



Delete 7

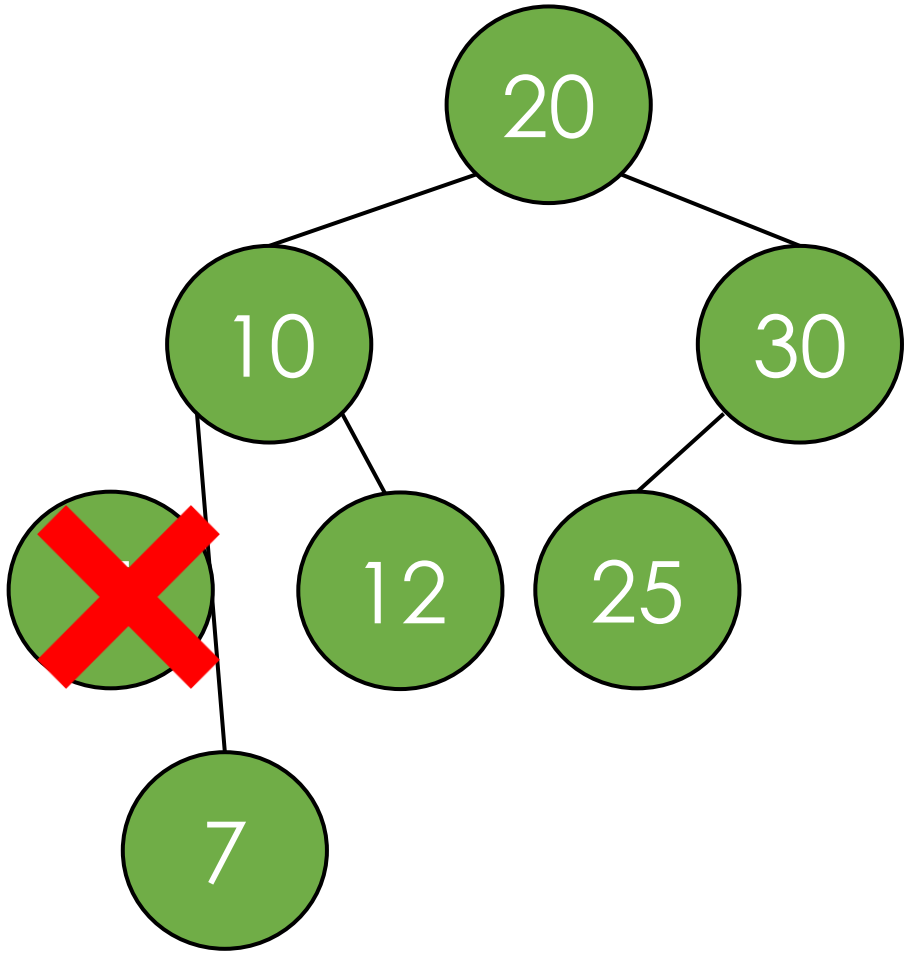
If leaf node: Delete parent's link 7

BST - Deletion



Delete 5

BST - Deletion

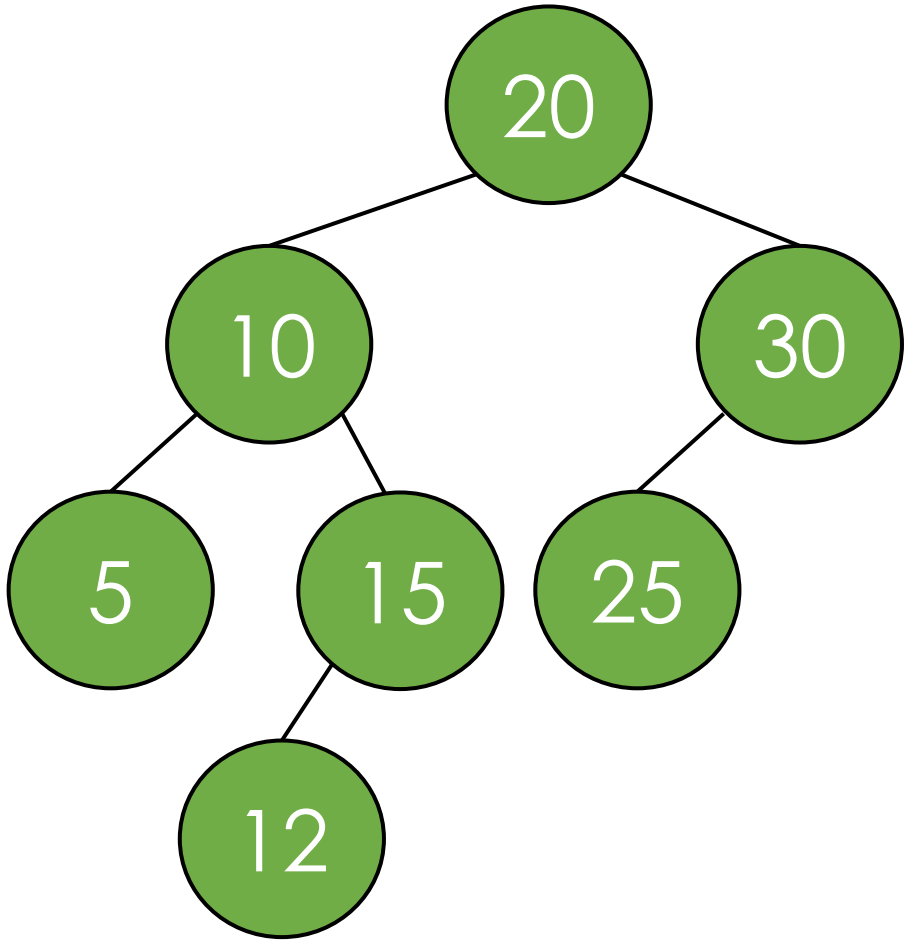


Delete 5

If only one child, hoist child

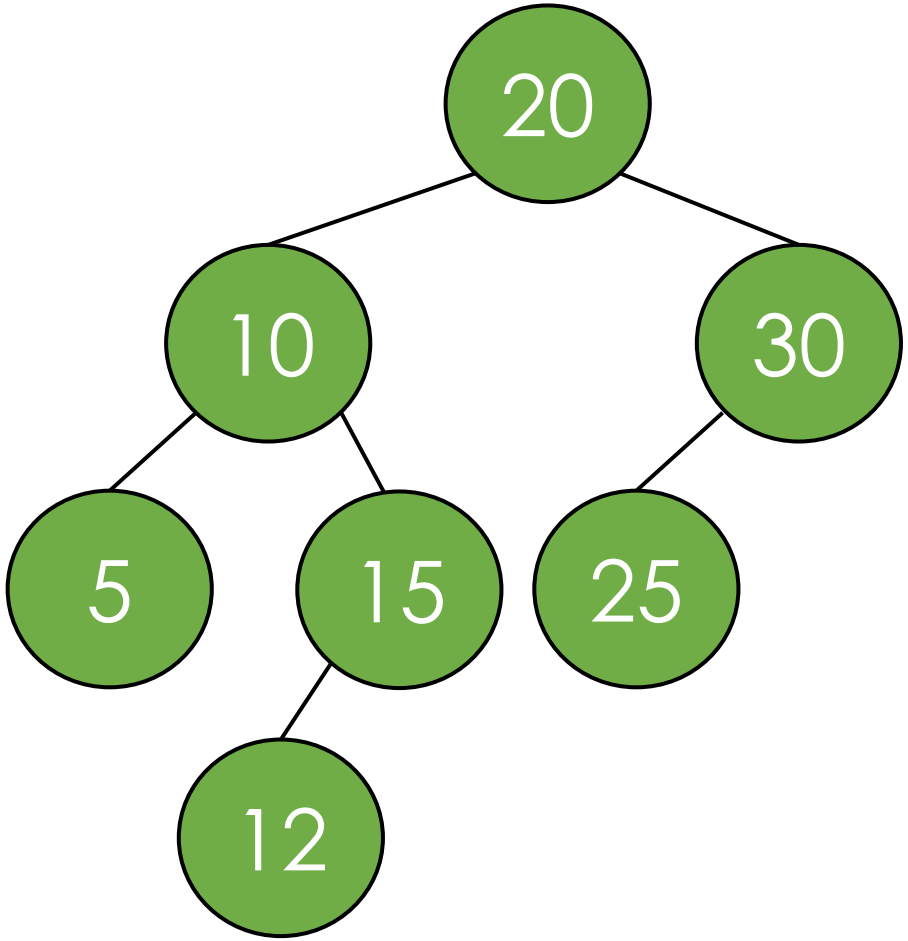
BST - Deletion

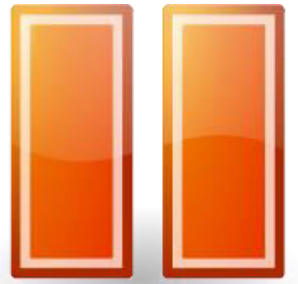
Delete 10



BST - Deletion

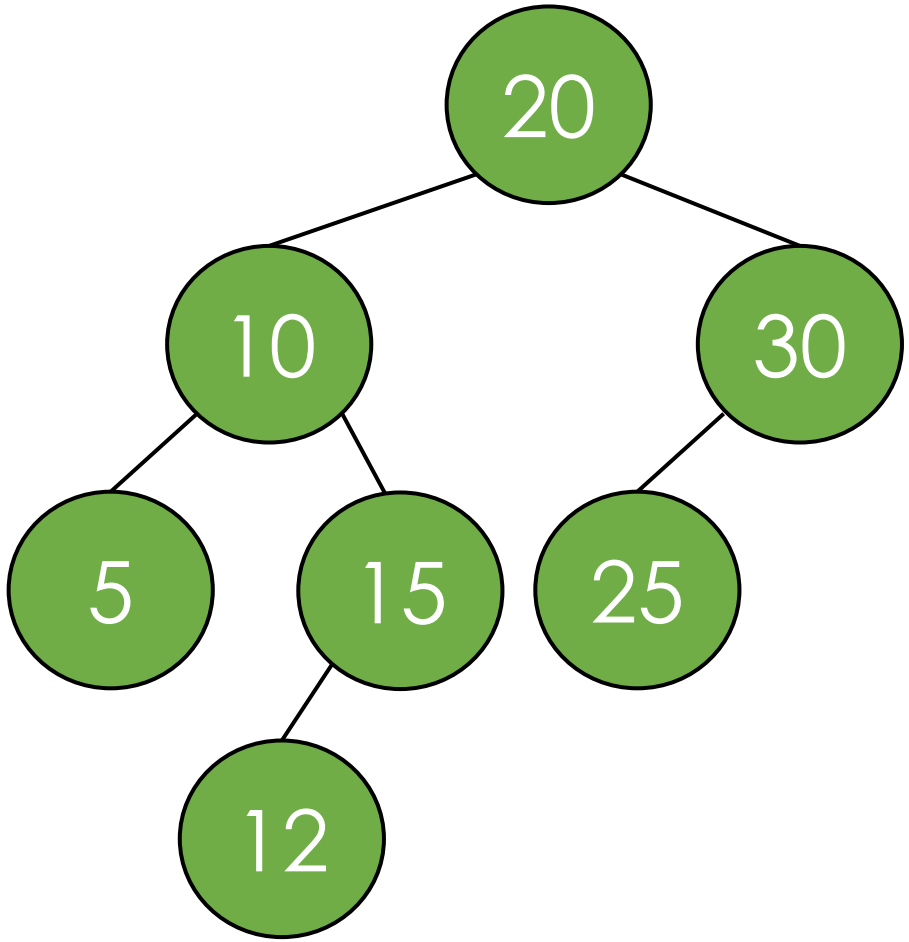
Delete 10



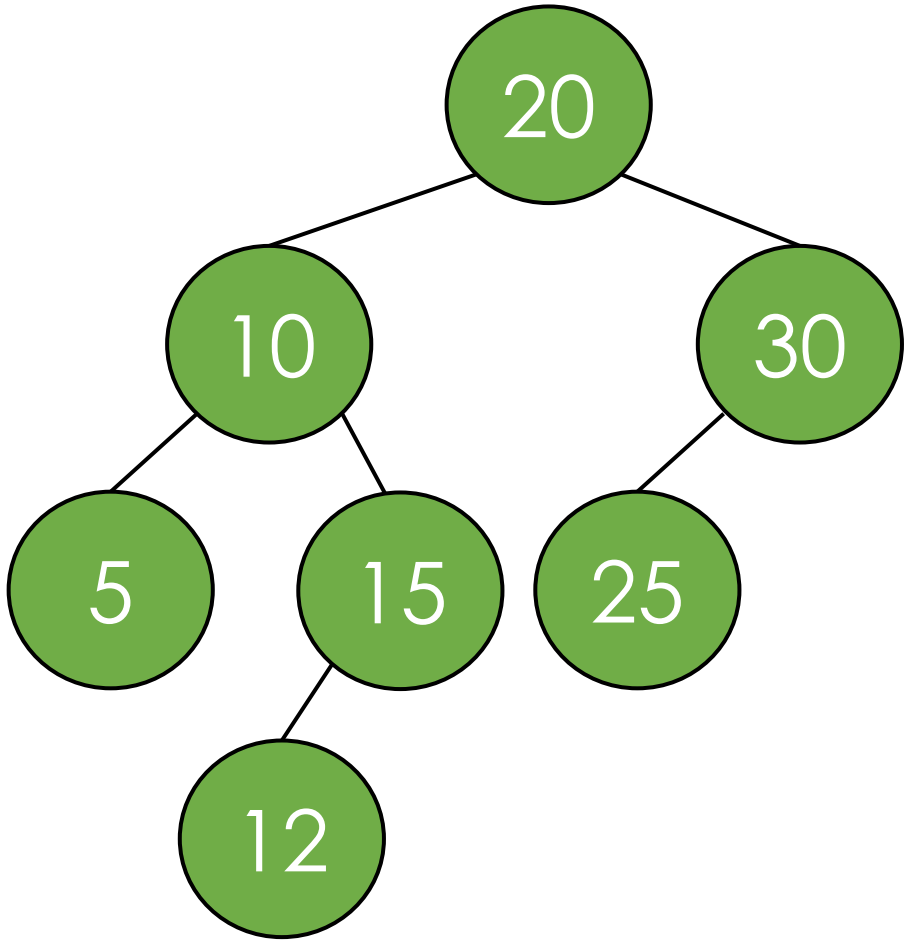


BST - Deletion

Delete 10



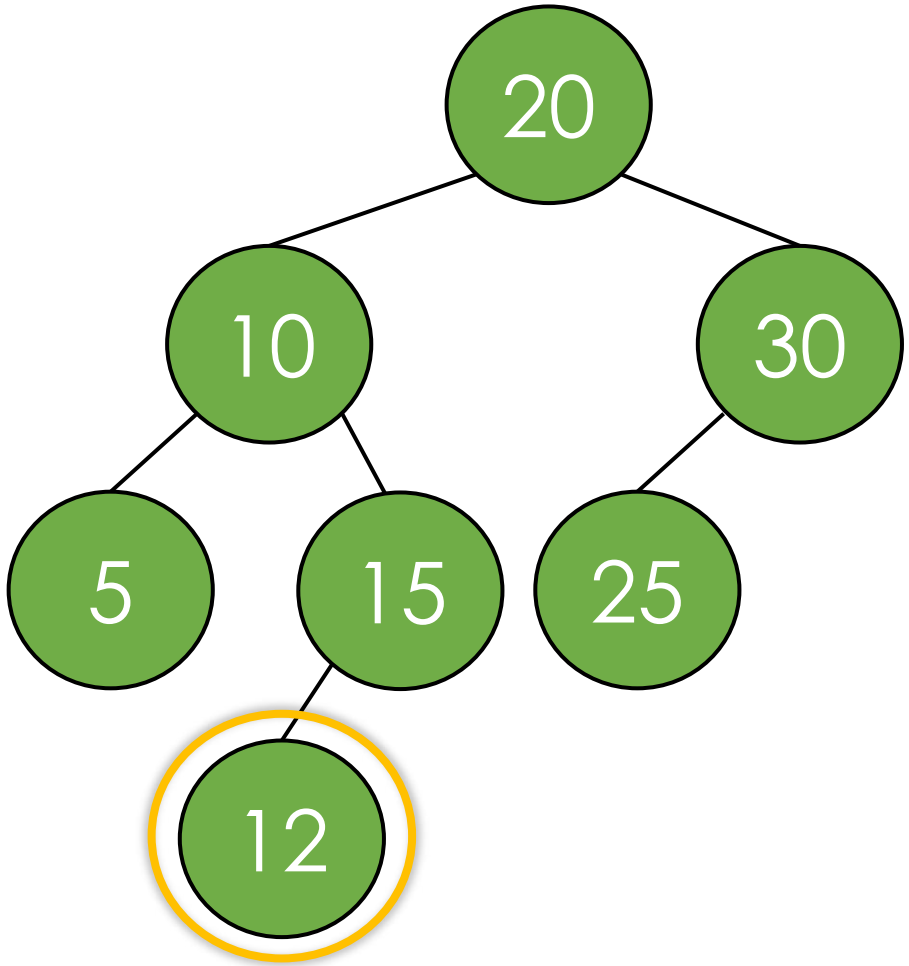
BST - Deletion



Delete 10

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

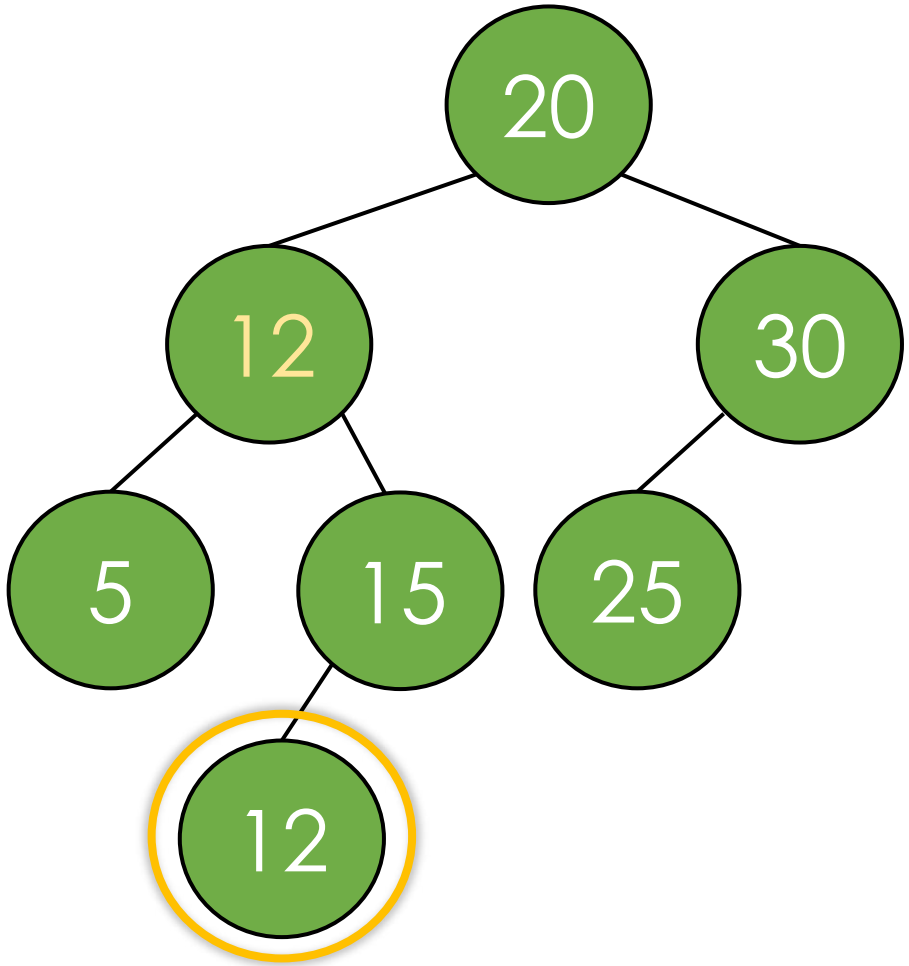
BST - Deletion



Delete 10

Find smallest value in right subtree

BST - Deletion

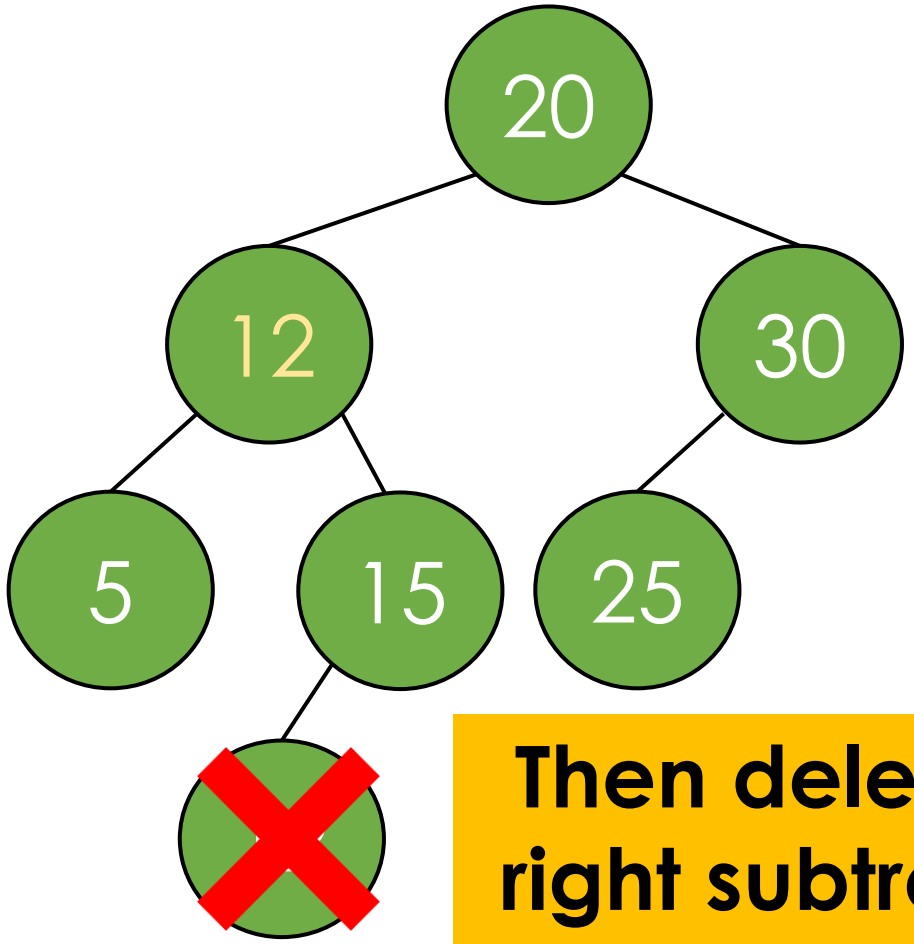


Delete 10

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