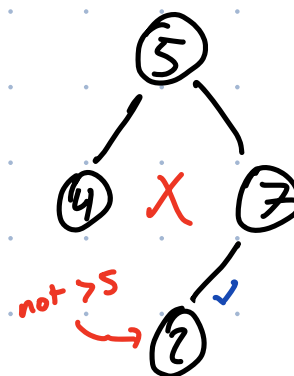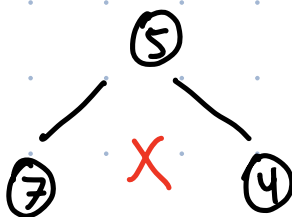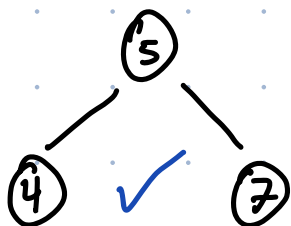# Valid Binary Search Tree

- Given Binary search tree w/ 3 numbers, see if it is a valid binary search tree
- Binary Search Tree – All nodes to the left are smaller than the ones, and the right ones are bigger



- Question: Validate Binary Search Tree

# Establish Data Structures

Class Node {
 value
 left ← Data Structure for nodes
 right
 3

*only node is valid*

isValid( n , low, high) {
 if(!n) return true
 n.val > low AND

 n.val < high AND

 isValid(n.left, low, n.val) AND
 isValid(n.right, n.val, high) AND
 O(n)

time: O(n) – depth first search, go through all once

Space: Complexity proportional to recursive stack ~ here linear O(n)