Kth Largest in a BST

Given a binary search tree root node and an integer K, return the Kth largest value  
  
Input: Node in a Binary Search Tree, Positive integer K  
Output: Integer

# Example

Input: root node, 3 => Output: 6

Input: root node, 5 => Output: 4

# Constraints

Time Complexity: O(N)  
Auxiliary Space Complexity: O(N)

The binary tree node has the following properties:

value : an integer  
leftChild : default null  
rightChild : default null

Not allowed to modify the binary search tree

# Solution

1. Keep a count of number of nodes operated on, set count to zero
2. Perform a reverse in-order depth first search (example using recursion)
   1. If node is null, return out
   2. Recurse to right child
   3. In-order operation: If count + 1 is equal to K, return the value
   4. Recurse to left child

# Notes

# See if you can implement a short circuit where once the kth value is found, then return out the stack right away.

# Resources

http://www.geeksforgeeks.org/kth-largest-element-in-bst-when-modification-to-bst-is-not-allowed/