

Largest BST

Given a binary tree. Find the **size** of its largest subtree which is a Binary Search Tree.

Note: Here Size equals the number of nodes in the subtree.

Examples :

Input:

```
    1
   / \
  4   4
 / \
6   8
```

Output: 1

Explanation: There's no sub-tree with size greater than 1 which forms a BST. All the leaf Nodes are the BSTs with size equal to 1.

Input:

```
    6
   / \
  6   2
 / \ / \
2  1 3
```

Output: 3

Explanation: The following sub-tree is a BST of size 3
i.e 2 (root) -> 1 (left) -> 3 (right)

Expected Time Complexity: $O(n)$.

Expected Auxiliary Space: $O(\text{Height of the BST})$.

Constraints:

$1 \leq \text{Number of nodes} \leq 10^5$

$1 \leq \text{Data of a node} \leq 10^6$