

Brothers From Different Roots

Given two BSTs containing **N1** and **N2** distinct nodes respectively and given a value **x**. Your task is to complete the function **countPairs()**, that returns the count of all pairs from both the BSTs whose sum is equal to **x**.

Input : BST 1: 5

```
/ \
3  7
/\ /\
2 4 6 8
```

```
BST 2:      10
           /  \
          6    15
         /\   /\
        3  8 11 18
x = 16
```

Output : 3

The pairs are:

(5, 11), (6, 10) and ***(8, 8)**

**

```
def countPairs(root1, root2, x):
    count = [0]
    helper(root1, x, count, root2)
    return count[0]

def helper(root, x, count, root2):
    if root is None:
        return
    helper(root.left, x, count, root2)
    target = x - root.data
    if search(root2, target):
        count[0] = count[0] + 1
    helper(root.right, x, count, root2)

def search(root, x):
    if root is None:
```

```
        return False
    if root.data<x:
        return search(root.right,x)
    elif root.data>x:
        return search(root.left,x)
    else:
        return True
```