

## BST Questions

### Question 1 :

#### Range Sum of BST

We have a Binary Search Tree consisting of N nodes and two positive integers L and R, the task is to find the sum of values of all the nodes that lie in the range [L, R]..

#### Sample Input1::



**Sample Output1** : 11

### Question 2 :

#### Find the closest element in Binary Search Tree

We have a binary search tree and a target node K. The task is to find the node with minimum absolute difference with given target value K.



**Sample Input 1** : 5

**Sample Output 1** : 5 (difference is 0)

**Sample Input 2** : 19

**Sample Output 2** : 20 (difference is 1)

### Question 3 :

#### Find k-th smallest element in BST

We have the root of a binary search tree and K as input, find Kth smallest element in BST.



**Sample Input 1 :** k=3

**Sample Output 1 :** 8

**Sample Input 2 :** k=5

**Sample Output 2 :** 5

**Question 4 :**

**Two Sum BSTs**

Given a BST, transform it into a greater sum tree where each node contains sum of all nodes greater than that node.

**Sample Input 1 :**



x = 16

**Sample Output 1 :** 3

The pairs are:

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

**Question 5 :**

**Maximum Sum BST in Binary Tree**

We have a binary tree, the task is to print the maximum sum of nodes of a sub-tree which is also a Binary Search Tree.

**Sample Input 1 :**

```
5
 / \
9   2
 /   \
6     3
 /\
8   7
```

**Sample Output 1 : 8**