# BST

A binary search tree (BST) is defined as a tree such that the value of each node is larger than the value of every node in its left subtree, and less than or equal to the value of every node in its right subtree. Given a list of *N* unique integers, construct a BST by inserting each integer in the given order without rebalancing the tree and find the sum of nodes lying on the path of two nodes(both inclusive).

## Input :

The first line denotes n, the number of values to be inserted in the BST. ( 1<=n<=100)
The second line consists of n integers denoting the values to be inserted.( 1<=each value<=10^4 )
The third line consists of two integer a and b. (1<=a,b<=10^4)

**Note :** You need to output the sum of integers that lie on the path from a to b. The sum should include elements a and b.

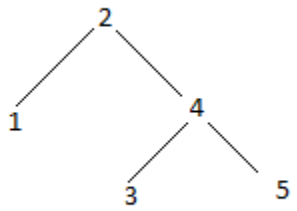
## Examples :

Input:
5
2 4 1 3 5
3 1

Output:
10

Explanation:

The tree formed is




Sum of nodes between 1 and 3 is 1+2+4+3=10.