

<https://course.acciojob.com/idle?question=6724980a-4f60-46df-acc1-7f0144f12959>

● EASY

● Max Score: 30 Points

Count Pair Sum (2 Arrays)

Given two sorted arrays `arr1[m]` and `arr2[n]` of distinct elements, the task is to find all pairs from both arrays whose sum is equal to `x`. The pair has an element from each array.

Input Format

First line contains two space separated integers `m` and `n` denoting the size of the two arrays.

Second line contains `m` space separated integers denoting the elements of the first array.

Third line contains `n` space separated integers denoting the elements of the second array.

Fourth line contains a single integer `x` denoting the sum.

Output Format

Print the count of all pairs from both arrays whose sum is equal to `x`.

Example 1

Input

```
4 4
1 2 4 5
3 5 7 8
9
```

Output

3

Explanation

The pairs are:

(1, 8), (2, 7) and (4, 5)

Example 2

Input

```
3 5
1 2 3
4 5 6 7 8
8
```

Output

3

Explanation

The pairs are:

(1, 7), (2, 6) and (3, 5)

Constraints

- $1 \leq m, n \leq 5 \cdot 10^4$
- $1 \leq \text{arr1}[i], \text{arr2}[i] \leq 10^5$
- $1 \leq x \leq 2 \cdot 10^5$

Topic Tags

- Hashing
- 2-Pointers
- Binary Search

- Arrays

My code

// in java

```
import java.io.*;
```

```
import java.util.*;
```

```
class Main {
```

```
    public static void main(String args[]) {
```

```
        Scanner input = new Scanner(System.in);
```

```
        int m = input.nextInt();
```

```
        int n = input.nextInt();
```

```
        int arr1[] = new int[m];
```

```
        int arr2[] = new int[n];
```

```
        for (int i = 0; i < m; i++) {
```

```
            arr1[i] = input.nextInt();
```

```
        }
```

```
        for (int i = 0; i < n; i++) {
```

```
            arr2[i] = input.nextInt();
```

```
        }
```

```
        int x = input.nextInt();
```

```
        Solution obj = new Solution();
```

```
        System.out.println(obj.countElements(arr1, arr2, m, n, x));
```

```
    }
```

```
}
```

```
class Solution {
```

```
public int countElements(int[] arr1, int[] arr2, int m, int n, int x) {  
    HashMap<Integer,Integer>hm=new HashMap<>();  
    for (int i = 0; i < m; i++)  
    {  
        hm.put(arr1[i],1);  
    }  
    int ans=0;  
    for (int i = 0; i < n; i++)  
    {  
        if(hm.containsKey(x-arr2[i]))  
            ans++;  
    }  
    return ans;  
}  
}
```