**Count pair sum**

Submissions: [1304](https://practice.geeksforgeeks.org/problem_submissions.php?pid=2136)  Accuracy:

48.07%

   Difficulty: [Basic](https://practice.geeksforgeeks.org/Basic/0/0/)   Marks: 1

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Given two sorted arrays of size **m** and **n** of distinct elements. Given a value **x**. The problem is to count all pairs from both arrays whose sum is equal to **x.**  
**Note:** The pair has an element from each array.

**Input:**  
The first line of input contains an integer T denoting the number of test cases. Then T test cases follow. Each test case contains two integers m and n denoting the size of the two arrays. The next two lines contains the two arrays arr1 and arr2 respectively. The last line contains the value of sum x.

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

**Constraints:**  
1<=T<=100  
1<=m,n<=10^5  
1<=arr1[i],arr2[j]<=10^5  
1<=k<=10^5

**Example:  
Input:**  
2  
4 4  
1 3 5 7  
2 3 5 8  
10  
7 7  
1 2 3 4 5 7 11  
2 3 4 5 6 8 12  
9

**Ouput:**  
2  
5

\*\* For More Input/Output Examples Use ['Expected Output'](https://practice.geeksforgeeks.org/problems/count-pair-sum/0#ExpectOP) option \*\*

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<https://practice.geeksforgeeks.org/problems/count-pair-sum/0>

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApp1

{

class Program

{

static int CountPairs(int[] arr1, int[] arr2, int x, int m, int n)

{

Dictionary<int, int> hashB = new Dictionary<int, int>();

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

{

if (hashB.ContainsKey(arr2[i])) hashB[arr2[i]]++;

else hashB[arr2[i]] = 1;

}

int pairs = 0;

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

{

if( hashB.ContainsKey(x-arr1[i]))

{

pairs += hashB[x - arr1[i]];

hashB.Remove(x - arr1[i]);

}

}

return pairs;

}

static void Main(string[] args)

{

int t = int.Parse(Console.ReadLine());

while (t-- > 0)

{

string[] input = Console.ReadLine().Trim().Split(' ');

int m = int.Parse(input[0]);

int n = int.Parse(input[1]);

int[] arr1 = Array.ConvertAll(Console.ReadLine().Trim().Split(' '), e => int.Parse(e));

int[] arr2 = Array.ConvertAll(Console.ReadLine().Trim().Split(' '), e => int.Parse(e));

int x = int.Parse(Console.ReadLine());

Console.WriteLine(CountPairs(arr1, arr2, x, m, n));

}

Console.ReadLine();

}

}

}