- **MEDIUM**
- **Max Score: 40 Points**
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Find pairs with given sum

Given an array of integers, and an integer 'K', find the count of pairs of elements in the array whose sum is equal to 'K'.

Input Format

The first line of the input contains 2 space separated integers N and K denoting the size of array and the sum respectively.

The second line of the input contains N space separated integers denoting the elements of the array.

Output Format

Print the count of pairs of elements in the array whose sum is equal to the K.

Example 1

Input

```
4 6
1 5 7 1
```

Output

2

Explanation

There are 2 pairs of elements in the array whose sum is 6. These are arr[0]+arr[1] and arr[1]+arr[3] (assuming 0 based indexing).

Example 2

Input

```
5 6
1 5 7 -1 5
```

Output

3

Explanation

There are 3 pairs with sum as 6, (1, 5), (1, 5), (7, -1). (1, 5) comes twice.

Constraints

```
1 <= N <= 100000
-100000 <= K <= 100000
-100000 <= A[i] <= 100000
```

Topic Tags

- **Hashing**
- **Loops**

My code

```java
// n java
import java.io.*;
import java.util.*;
public class Main {

    public static int getPairsCount(int[] arr, int n, int sum){
    //Write your code here
            int ans=0;
            HashMap<Integer,Integer>hm=new HashMap<>();
            for(int i=0;i<n;i++)
                {
                        if(hm.containsKey(sum-arr[i]))
                                ans=ans+hm.get(sum-arr[i]);
                        hm.put(arr[i],hm.getOrDefault(arr[i],0)+1);

                }
            return ans;
    }

    public static void main(String args[]) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        int sum = sc.nextInt();
        int arr[] = new int[n];
        for(int i=0; i<n; i++)
        {
            arr[i]=sc.nextInt();
```

```java
        }
        System.out.println(getPairsCount(arr,n, sum));
    }
}
```