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Common Absolute Difference

? Ask Doubt

Time-Limit: 5 sec Score: 0/100 Difficulty :

Memory: 256 MB Accepted Submissions: 100

Description

You are given an array A of N integers and an integer K. Find the number of pairs (i, j) such that i < j and abs(A_i - A_j) = K

Input Format

The first line of the input contains one integer T - the number of test cases. Then T test cases follow.

The first line of each test case contains two space-separated integers N K - the length of the array and the required absolute difference.

The second line of each test case contains N space-separated integers.

Output Format

For each test case, print the number of pairs (i, j) such that i < j and abs(A_i - A_j) = K

Constraints

$1 \le T \le 10^5$

$1 \le N \le 10^5$

$1 \le A_i \le 10^9$

1≤ K ≤ 10^9.

It is guaranteed that the sum of N over all test cases does not exceed 10^5.

Notice K≠0, can you handle the case when K=0?

Sample Input 1

Copy

```
3
5 2
1 2 3 4 5
4 1
3 1 2 6
3 10
1 3 2
```

Sample Output 1

Copy

C++14[GCC]

Submit

```
1
```