

Problem

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Given an array of integers and a target value, determine the number of pairs of array elements that have a difference equal to the target value.

Example

k = 1

$$arr = [1, 2, 3, 4]$$

There are three values that differ by $\emph{k}=1$: $\emph{2}-\emph{1}=\emph{1}$, $\emph{3}-\emph{2}=\emph{1}$, and $\emph{4}-\emph{3}=\emph{1}$. Return $\emph{3}$.

Function Description

Complete the pairs function below.

pairs has the following parameter(s):

- int k: an integer, the target difference
- int arr[n]: an array of integers

• int: the number of pairs that satisfy the criterion

Input Format

The first line contains two space-separated integers $m{n}$ and $m{k}$, the size of $m{arr}$ and the target value.

The second line contains $m{n}$ space-separated integers of the array $m{arr}$.

Constraints

- $2 \le n \le 10^5$
- $0 < k < 10^9$
- $0 < arr[i] < 2^{31} 1$
- each integer arr[i] will be unique

Sample Input

STDIN	Function
5 2	arr[] size n = 5, k =2
1 5 3 4 2	arr = [1, 5, 3, 4, 2]

Sample Output

3

Explanation

There are 3 pairs of integers in the set with a difference of 2: [5,3], [4,2] and [3,1]. .

```
Change Theme Language C#
                                                                                                10
    using System.CodeDom.Compiler;
1
2
    using System.Collections.Generic;
3
   using System.Collections;
   using System.ComponentModel;
4
   using System.Diagnostics.CodeAnalysis;
    using System.Globalization;
6
7
    using System.IO;
    using System.Linq;
8
9
    using System.Reflection;
10
    using System.Runtime.Serialization;
11
    using System.Text.RegularExpressions;
12
    using System.Text;
13
    using System;
14
    class Result
15
16
17
18
19
         * Complete the 'pairs' function below.
20
21
         * The function is expected to return an INTEGER.
22
         * The function accepts following parameters:
23
          * 1. INTEGER k
24
         * 2. INTEGER_ARRAY arr
25
         */
26
27
        public static int pairs(int k, List<int> arr)
                                                                                                    Line: 70 Col: 1
                                                                                      Run Code
                                                                                                    Submit Code
Test against custom input
```

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