Problem I. Pairs

OS Linux

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 $k = 1$: $2 - 1 = 1$, $3 - 2 = 1$, and $4 - 3 = 1$. Return **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

Returns

- *int:* the number of pairs that satisfy the criterion

Input Format

The first line contains two space-separated integers n and k, the size of arr and the target value.
The second line contains n space-separated integers of the array arr.

Constraints

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

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

Explanation

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