

Pairs

<https://www.hackerrank.com/challenges/pairs/problem>

You will be given an array of integers and a target value. Determine the number of pairs of array elements that have a difference equal to a target value.

For example, given an array of $[1, 2, 3, 4]$ and a target value of 1, we have three values meeting the condition: $2 - 1 = 1$, $3 - 2 = 1$, and $4 - 3 = 1$.

Function Description

Complete the pairs function below. It must return an integer representing the number of element pairs having the required difference.

pairs has the following parameter(s):

- k : an integer, the target difference
- arr : an array of integers

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 space-separated integers of the array.

Constraints

$$2 \leq n \leq 10^5$$

$$0 < k < 10^9$$

$$0 < arr[i] < 2^{31} - 1$$

$arr[i]$ will be unique (*my implementation works even without this condition*)

Output Format

An integer representing the number of pairs of integers whose difference is k .

Example input	Expected output	Explanation
5 2 1 5 3 4 2	3	here are 3 pairs of integers in the set with a difference of 2: [5,3], [4,2] and [3,1] .
10 2 1 1 2 2 3 3 3 4 4 5	13	
10 3 1 1 2 2 3 3 3 4 4 5	6	

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