

Pairs



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 *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

Output Format

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

Sample Input

```
5 2
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 $[3,1]$.