# **Pairs**



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**

$$egin{aligned} k = 1 \ arr = [1,2,3,4] \end{aligned}$$

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**

- $2 \le n \le 10^5$
- $0 < k < 10^9$
- $0 < arr[i] < 2^{31} 1$
- ullet 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].