Pairs ★

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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 $k = 1$: $2 - 1 = 1$, $3 - 2 = 1$, 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

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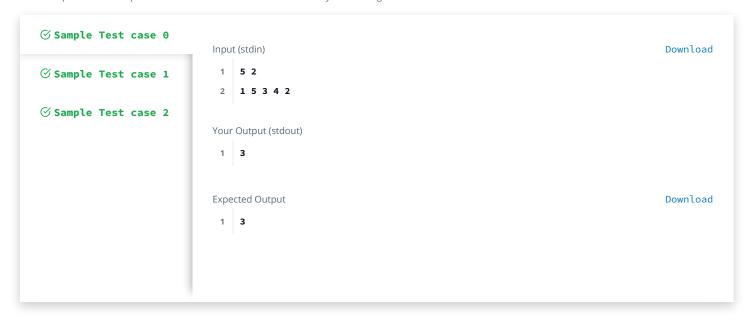
Sample Output

```
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   JavaScript (Node.js) ⌄   ⟳ ⤢ ⚙

```
20
21    });
22
23    function readLine() {
```

```
24          return inputString[currentLine++];
25      }
26
27      // Complete the pairs function below.
28      function pairs(k, arr) {
29          const s = new Set(arr);
30          return arr.reduce((ac,v) => s.has(v-k) ? ac+1: ac,0);
31      }
32
33      function main() {
34          const ws = fs.createWriteStream(process.env.OUTPUT_PATH);
35
36          const nk = readLine().split(' ');
37
38          const n = parseInt(nk[0], 10);
39
40          const k = parseInt(nk[1], 10);
41
42          const arr = readLine().split(' ').map(arrTemp => parseInt(arrTemp, 10));
43
44          let result = pairs(k, arr);
```

Line: 31 Col: 2

⬆ Upload Code as File   ☐ Test against custom input   **Run Code**   Submit Code

Congratulations!

You have passed the sample test cases. Click the submit button to run your code against all the test cases.

| ⊘ **Sample Test case 0** |
| ⊘ **Sample Test case 1** |
| ⊘ **Sample Test case 2** |

Input (stdin)   Download

```
1   5 2
2   1 5 3 4 2
```

Your Output (stdout)

```
1   3
```

Expected Output   Download

```
1   3
```

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