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Test Name:	**Mock Test**
Taken On:	11 Oct 2023 09:15:13 IST
Time Taken:	3 min 1 sec/ 25 min
Invited by:	Ankush
Invited on:	11 Oct 2023 09:15:03 IST
Skills Score:	
Tags Score:	Algorithms 50/75 Core CS 50/75 Medium 50/75 Search 50/75 problem-solving 50/75

66.7%

50/75

scored in **Mock Test** in 3 min 1 sec on 11 Oct 2023 09:15:13 IST

Recruiter/Team Comments:

No Comments.

	Question Description	Time Taken	Score	Status
Q1	Pairs > **Coding**	2 min 56 sec	50/ 75	✓

QUESTION 1

Correct Answer

Score 50

Pairs > Coding

Search | Algorithms | Medium | problem-solving | Core CS

QUESTION DESCRIPTION

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

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]. .

CANDIDATE ANSWER

Language used: **Python 3**

```python

#
# Complete the 'pairs' function below.
#
# The function is expected to return an INTEGER.
# The function accepts following parameters:
#  1. INTEGER k
#  2. INTEGER_ARRAY arr
#

import itertools
def pairs(k, arr):
    # Write your code here
    combinations = []

    for combination in itertools.combinations(arr, 2):
        if abs(combination[0] - combination[1]) == k:
            combinations.append(combination[0] - combination[1])


    return len(combinations)

```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Hidden case	Success	5	0.1122 sec	10.7 KB

Testcase 2	Easy	Hidden case	Success	5	0.0662 sec	10.7 KB
Testcase 3	Easy	Hidden case	Success	5	0.066 sec	10.8 KB
Testcase 4	Easy	Hidden case	Success	5	0.0718 sec	10.7 KB
Testcase 5	Easy	Hidden case	Success	5	0.1585 sec	10.7 KB
Testcase 6	Easy	Hidden case	Success	5	1.3792 sec	11.1 KB
Testcase 7	Easy	Hidden case	Success	5	1.5151 sec	11.3 KB
Testcase 8	Easy	Hidden case	Success	5	0.3514 sec	11 KB
Testcase 9	Easy	Hidden case	Success	5	1.0359 sec	11.1 KB
Testcase 10	Easy	Hidden case	Success	5	3.3499 sec	11.7 KB
Testcase 11	Easy	Hidden case	Terminated due to timeout	0	10.0033 sec	22 KB
Testcase 12	Easy	Hidden case	Terminated due to timeout	0	10.0047 sec	21.6 KB
Testcase 13	Easy	Hidden case	Terminated due to timeout	0	10.0035 sec	21.8 KB
Testcase 14	Easy	Hidden case	Terminated due to timeout	0	10.0039 sec	21.8 KB
Testcase 15	Easy	Hidden case	Terminated due to timeout	0	10.003 sec	21.8 KB
Testcase 16	Easy	Sample case	Success	0	0.0468 sec	10.7 KB
Testcase 17	Easy	Sample case	Success	0	0.0806 sec	10.5 KB
Testcase 18	Easy	Sample case	Success	0	0.0559 sec	10.4 KB

No Comments

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