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Test Name: Mock Test
Taken On: 11 Oct 2023 20:40:39 IST
Time Taken: 2 min 28 sec/ 25 min
Invited by: Ankush
Invited on: 11 Oct 2023 20:40:32 IST
Skills Score:
Tags Score:

Algorithms 75/75
Core CS 75/75
Medium 75/75
Search 75/75
problem-solving 75/75

100%

75/75

scored in Mock Test in 2 min 28 sec on 11 Oct 2023 20:40:39 IST

Recruiter/Team Comments:

No Comments.

	Question Description	Time Taken	Score	Status
Q1	Pairs > Coding	1 min 51 sec	75/ 75	✓

QUESTION 1



Correct Answer

Score 75

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**

```
1 #
2 # Complete the 'pairs' function below.
3 #
4 # The function is expected to return an INTEGER.
5 # The function accepts following parameters:
6 # 1. INTEGER k
7 # 2. INTEGER_ARRAY arr
8 #
9
10 def pairs(k, arr):
11     # Write your code here
12     combinations = []
13
14     map_ = {item:True for item in arr}
15
16     for number in arr:
17         if number + k in map_:
18             combinations.append([number, k])
19         if number - k in map_:
20             combinations.append([number, k])
21         del map_[number]
22
23     print(combinations)
24
25     return len(combinations)
```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Hidden case	 Success	5	0.0607 sec	10.8 KB

Testcase 2	Easy	Hidden case	✔ Success	5	0.0549 sec	10.8 KB
Testcase 3	Easy	Hidden case	✔ Success	5	0.0524 sec	10.8 KB
Testcase 4	Easy	Hidden case	✔ Success	5	0.0679 sec	10.6 KB
Testcase 5	Easy	Hidden case	✔ Success	5	0.0551 sec	10.7 KB
Testcase 6	Easy	Hidden case	✔ Success	5	0.0603 sec	11.9 KB
Testcase 7	Easy	Hidden case	✔ Success	5	0.0756 sec	12.2 KB
Testcase 8	Easy	Hidden case	✔ Success	5	0.0983 sec	11.2 KB
Testcase 9	Easy	Hidden case	✔ Success	5	0.0656 sec	11.5 KB
Testcase 10	Easy	Hidden case	✔ Success	5	0.067 sec	12.3 KB
Testcase 11	Easy	Hidden case	✔ Success	5	0.1925 sec	24.6 KB
Testcase 12	Easy	Hidden case	✔ Success	5	0.1596 sec	24.8 KB
Testcase 13	Easy	Hidden case	✔ Success	5	0.1509 sec	25 KB
Testcase 14	Easy	Hidden case	✔ Success	5	0.1125 sec	24.7 KB
Testcase 15	Easy	Hidden case	✔ Success	5	0.1297 sec	25.2 KB
Testcase 16	Easy	Sample case	✔ Success	0	0.0588 sec	10.7 KB
Testcase 17	Easy	Sample case	✔ Success	0	0.0617 sec	10.9 KB
Testcase 18	Easy	Sample case	✔ Success	0	0.272 sec	10.5 KB

No Comments