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Test Name: Mock Test

Taken On: 11 Oct 2023 08:36:16 IST

Time Taken: 14 min 2 sec/ 25 min

Invited by: Ankush

Invited on: 11 Oct 2023 08:36:07 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 14 min 2 sec on 11 Oct 2023 08:36:16 IST

Recruiter/Team Comments:

No Comments.

	Question Description	Time Taken	Score	Status
Q1	Pairs > Coding	11 min 6 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

```
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     for i in range(len(arr)):
15         for v in arr[i+1:]:
16             if abs(arr[i] - v) == k:
17                 combinations.append([arr[i], v])
18
19     return len(combinations)
```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Hidden case	✔ Success	5	0.0907 sec	10.6 KB
Testcase 2	Easy	Hidden case	✔ Success	5	0.0545 sec	10.7 KB
Testcase 3	Easy	Hidden case	✔ Success	5	0.0497 sec	10.5 KB
Testcase 4	Easy	Hidden case	✔ Success	5	0.0554 sec	10.7 KB

Testcase 5	Easy	Hidden case	✔ Success	5	0.0783 sec	10.8 KB
Testcase 6	Easy	Hidden case	✔ Success	5	0.9572 sec	11.3 KB
Testcase 7	Easy	Hidden case	✔ Success	5	1.038 sec	11.3 KB
Testcase 8	Easy	Hidden case	✔ Success	5	0.2949 sec	10.9 KB
Testcase 9	Easy	Hidden case	✔ Success	5	0.6994 sec	11.3 KB
Testcase 10	Easy	Hidden case	✔ Success	5	2.2439 sec	11.7 KB
Testcase 11	Easy	Hidden case	✘ Terminated due to timeout	0	10.0043 sec	22 KB
Testcase 12	Easy	Hidden case	✘ Terminated due to timeout	0	10.0074 sec	21.9 KB
Testcase 13	Easy	Hidden case	✘ Terminated due to timeout	0	10.0041 sec	21.6 KB
Testcase 14	Easy	Hidden case	✘ Terminated due to timeout	0	10.0048 sec	21.9 KB
Testcase 15	Easy	Hidden case	✘ Terminated due to timeout	0	10.0033 sec	21.8 KB
Testcase 16	Easy	Sample case	✔ Success	0	0.0394 sec	10.7 KB
Testcase 17	Easy	Sample case	✔ Success	0	0.0631 sec	10.6 KB
Testcase 18	Easy	Sample case	✔ Success	0	0.0512 sec	10.3 KB

No Comments