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Test Name:	**Mock Test**
Taken On:	27 Aug 2025 21:34:18 IST
Time Taken:	9 min 2 sec/ 90 min
Invited by:	Ankush
Invited on:	27 Aug 2025 21:33:48 IST
Skills Score:	

100%

290/290

scored in **Mock Test** in 9 min 2 sec on 27 Aug 2025 21:34:18 IST

Tags Score:

Algorithms	290/290
Arrays	95/95
Core CS	290/290
Data Structures	215/215
Easy	95/95
Medium	75/75
Queues	120/120
Search	75/75
Sorting	95/95
Strings	95/95
problem-solving	170/170

Recruiter/Team Comments:

No Comments.

Plagiarism flagged

We have marked questions with suspected plagiarism below. Please review it in detail here -

	Question Description	Time Taken	Score	Status
Q1	Truck Tour › **Coding**	4 min 33 sec	120/ 120	!
Q2	Pairs › **Coding**	2 min 44 sec	75/ 75	✓
Q3	Big Sorting › **Coding**	1 min 33 sec	95/ 95	✓

QUESTION 1

Truck Tour › Coding   Algorithms   Data Structures   Queues   Core CS

Needs Review

Score 120

QUESTION DESCRIPTION

Suppose there is a circle. There are N petrol pumps on that circle. Petrol pumps are numbered 0 to $(N-1)$ (both inclusive). You have two pieces of information corresponding to each of the petrol pump: (1) the amount of petrol that particular petrol pump will give, and (2) the distance from that petrol pump to the next petrol pump.

Initially, you have a tank of infinite capacity carrying no petrol. You can start the tour at any of the petrol pumps. Calculate the first point from where the truck will be able to complete the circle. Consider that the truck will stop at each of the petrol pumps. The truck will move one kilometer for each litre of the petrol.

Input Format

The first line will contain the value of N.
The next N lines will contain a pair of integers each, i.e. the amount of petrol that petrol pump will give and the distance between that petrol pump and the next petrol pump.

Constraints:

$1 \leq N \leq 10^5$
$1 \leq \text{amount of petrol, distance} \leq 10^9$

Output Format

An integer which will be the smallest index of the petrol pump from which we can start the tour.

Sample Input

```
3
1 5
10 3
3 4
```

Sample Output

```
1
```

Explanation

We can start the tour from the second petrol pump.

CANDIDATE ANSWER

Language used: **Python 3**

```

#
# Complete the 'truckTour' function below.
#
# The function is expected to return an INTEGER.
# The function accepts 2D_INTEGER_ARRAY petrolpumps as parameter.
#

def truckTour(petrolpumps):
    # Write your code here
    s, c, t=0, 0, 0
    for i in range(len(petrolpumps)):
        p, d=petrolpumps[i]
        c+=(p-d)
        if c<0:
            t+=c
            c=0
            s=i+1
    if t+c>=0:
        return s
    else:
        return -1

```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Sample case	✓ Success	0	0.0298 sec	10.1 KB
Testcase 2	Easy	Hidden case	✓ Success	10	0.0237 sec	10.3 KB
Testcase 3	Easy	Hidden case	✓ Success	10	0.0263 sec	10.4 KB
Testcase 4	Easy	Hidden case	✓ Success	10	0.0305 sec	10.4 KB
Testcase 5	Easy	Hidden case	✓ Success	10	0.265 sec	29.4 KB
Testcase 6	Easy	Hidden case	✓ Success	10	0.2394 sec	29.4 KB
Testcase 7	Easy	Hidden case	✓ Success	10	0.2399 sec	29.3 KB
Testcase 8	Easy	Hidden case	✓ Success	10	0.2486 sec	29.4 KB
Testcase 9	Easy	Hidden case	✓ Success	10	0.2617 sec	29.4 KB
Testcase 10	Easy	Hidden case	✓ Success	10	0.2302 sec	29.4 KB
Testcase 11	Easy	Hidden case	✓ Success	10	0.2483 sec	29.4 KB
Testcase 12	Easy	Hidden case	✓ Success	10	0.2408 sec	29.4 KB
Testcase 13	Easy	Hidden case	✓ Success	10	0.2626 sec	29.4 KB

No Comments

QUESTION 2

✓

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**

```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
#

def pairs(k, arr):
    # Write your code here
    arr.sort()
    c=0
    arr_set=set(arr)
    for i in arr:
        if (i-k) in arr_set:
            c+=1
    return c

```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Hidden case	✓ Success	5	0.0249 sec	10.1 KB
Testcase 2	Easy	Hidden case	✓ Success	5	0.0252 sec	10.3 KB
Testcase 3	Easy	Hidden case	✓ Success	5	0.0246 sec	10.3 KB
Testcase 4	Easy	Hidden case	✓ Success	5	0.0299 sec	10.3 KB
Testcase 5	Easy	Hidden case	✓ Success	5	0.0255 sec	10.3 KB
Testcase 6	Easy	Hidden case	✓ Success	5	0.0291 sec	11.4 KB
Testcase 7	Easy	Hidden case	✓ Success	5	0.029 sec	11.4 KB
Testcase 8	Easy	Hidden case	✓ Success	5	0.0247 sec	10.5 KB

Testcase 9	Easy	Hidden case	✓ Success	5	0.0419 sec	11.3 KB
Testcase 10	Easy	Hidden case	✓ Success	5	0.0279 sec	11.8 KB
Testcase 11	Easy	Hidden case	✓ Success	5	0.0744 sec	22.6 KB
Testcase 12	Easy	Hidden case	✓ Success	5	0.1288 sec	22.6 KB
Testcase 13	Easy	Hidden case	✓ Success	5	0.0902 sec	22.6 KB
Testcase 14	Easy	Hidden case	✓ Success	5	0.1133 sec	22.6 KB
Testcase 15	Easy	Hidden case	✓ Success	5	0.0837 sec	22.6 KB
Testcase 16	Easy	Sample case	✓ Success	0	0.0236 sec	10.3 KB
Testcase 17	Easy	Sample case	✓ Success	0	0.0243 sec	10.1 KB
Testcase 18	Easy	Sample case	✓ Success	0	0.0267 sec	10 KB

No Comments

QUESTION 3

✓

Correct Answer

Score 95

Big Sorting › Coding

Sorting Strings Algorithms Easy Data Structures Arrays problem-solving Core CS

QUESTION DESCRIPTION

Consider an array of numeric strings where each string is a positive number with anywhere from 1 to 10^6 digits. Sort the array's elements in *non-decreasing*, or ascending order of their integer values and return the sorted array.

Example

$unsorted = [’1’, ’200’, ’150’, ’3’]$

Return the array ['1', '3', '150', '200'].

Function Description

Complete the *bigSorting* function in the editor below.

bigSorting has the following parameter(s):

- *string unsorted[n]:* an unsorted array of integers as strings

Returns

- *string[n]:* the array sorted in numerical order

Input Format

The first line contains an integer, n, the number of strings in $unsorted$.
Each of the n subsequent lines contains an integer string, $unsorted[i]$.

Constraints

- $1 \leq n \leq 2 \times 10^5$
- Each string is guaranteed to represent a positive integer.
- There will be no leading zeros.
- The total number of digits across all strings in $unsorted$ is between 1 and 10^6 (inclusive).

Sample Input 0

```
6
31415926535897932384626433832795
1
3
10
```

```
3
5
```

Sample Output 0

```
1
3
3
5
10
31415926535897932384626433832795
```

Explanation 0

The initial array of strings is $unsorted = [31415926535897932384626433832795, 1, 3, 10, 3, 5]$. When we order each string by the real-world integer value it represents, we get:

$$1 \leq 3 \leq 3 \leq 5 \leq 10 \leq 31415926535897932384626433832795$$

We then print each value on a new line, from smallest to largest.

Sample Input 1

```
8
1
2
100
12303479849857341718340192371
3084193741082937
3084193741082938
111
200
```

Sample Output 1

```
1
2
100
111
200
3084193741082937
3084193741082938
12303479849857341718340192371
```

CANDIDATE ANSWER

Language used: **Python 3**

```python

#
# Complete the 'bigSorting' function below.
#
# The function is expected to return a STRING_ARRAY.
# The function accepts STRING_ARRAY unsorted as parameter.
#

def bigSorting(unsorted):
    # Write your code here
    unsorted.sort(key=lambda x: (len(x),x))
    return unsorted

```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Sample case	✓ Success	0	0.0295 sec	9.88 KB
Testcase 2	Medium	Hidden case	✓ Success	10	0.0262 sec	10.1 KB
Testcase 3	Medium	Hidden case	✓ Success	10	0.0356 sec	11.6 KB
Testcase 4	Hard	Hidden case	✓ Success	15	0.0707 sec	13.8 KB
Testcase 5	Hard	Hidden case	✓ Success	15	0.0554 sec	14.2 KB
Testcase 6	Hard	Hidden case	✓ Success	15	0.0549 sec	13.1 KB
Testcase 7	Hard	Hidden case	✓ Success	15	0.085 sec	16.8 KB
Testcase 8	Hard	Hidden case	✓ Success	15	0.4678 sec	36.5 KB
Testcase 9	Easy	Sample case	✓ Success	0	0.0357 sec	10.1 KB

No Comments

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