Introduction to Sets *

35 more points to get your gold badge!
Rank: 348816 | Points: 365/400



X

Your Introduction to Sets submission got 10.00 points.

hare Po

Post

You are now 35 points away from the gold level for your python badge.

Try the next challenge | Try a Random Challenge

Problem

Submissions

Leaderboard

Editorial 🖰

A set is an unordered collection of elements without duplicate entries.

When printed, iterated or converted into a sequence, its elements will appear in an arbitrary order.

Example

```
>>> print set()
set([])
>>> print set('HackerRank')
set(['a', 'c', 'e', 'H', 'k', 'n', 'r', 'R'])
>>> print set([1,2,1,2,3,4,5,6,0,9,12,22,3])
set([0, 1, 2, 3, 4, 5, 6, 9, 12, 22])
>>> print set((1,2,3,4,5,5))
set([1, 2, 3, 4, 5])
>>> print set(set(['H','a','c','k','e','r','r','a','n','k']))
set(['a', 'c', 'r', 'e', 'H', 'k', 'n'])
>>> print set({'Hacker' : 'DOSHI', 'Rank' : 616 })
set(['Hacker', 'Rank'])
>>> print set(enumerate(['H','a','c','k','e','r','r','a','n','k']))
set([(6, 'r'), (7, 'a'), (3, 'k'), (4, 'e'), (5, 'r'), (9, 'k'), (2, 'c'), (0, 'H'), (1, 'a'), (8, 'n')])
```

Basically, sets are used for membership testing and eliminating duplicate entries.

Task

Now, let's use our knowledge of sets and help Mickey.

Ms. Gabriel Williams is a botany professor at District College. One day, she asked her student Mickey to compute the average of all the plants with distinct heights in her greenhouse.

Formula used:

$$Average = rac{Sum \ of \ Distinct \ Heights}{Total \ Number \ of \ Distinct \ Heights}$$

Function Description

Complete the average function in the editor below.

average has the following parameters:

• int arr: an array of integers

Returns

• float: the resulting float value rounded to 3 places after the decimal

Input Format

The first line contains the integer, \emph{N} , the size of \emph{arr} .

The second line contains the N space-separated integers, arr[i].

Constraints

```
0 < N \le 100
```

Sample Input

```
STDIN Function
----

10 arr[] size N = 10

161 182 161 154 176 170 167 171 170 174 arr = [161, 181, ..., 174]
```

Sample Output

169.375

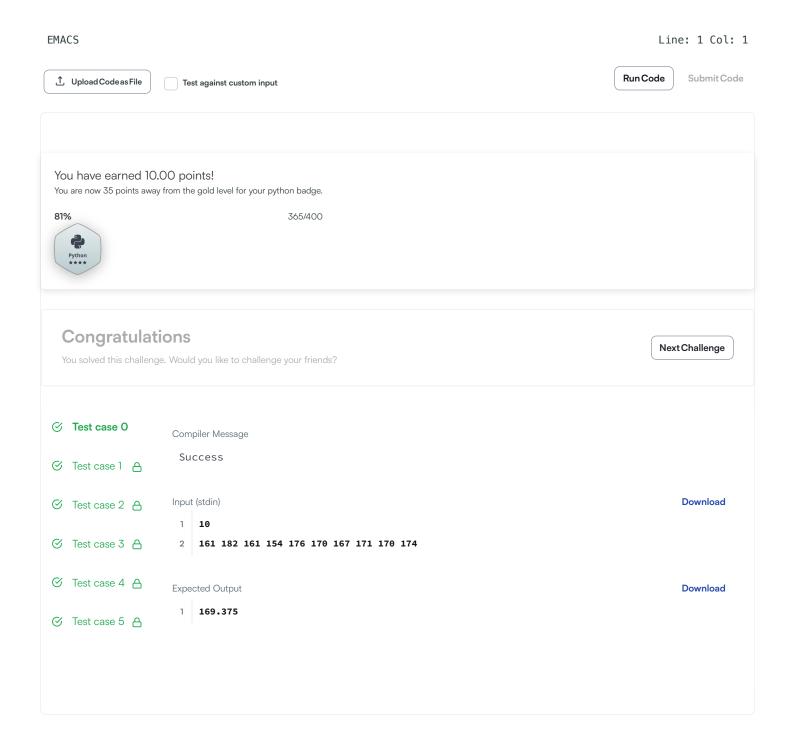
Explanation

Here, set([154, 161, 167, 170, 171, 174, 176, 182]) is the set containing the distinct heights. Using the sum() and len() functions, we can compute the average.

$$Average = \frac{1355}{8} = 169.375$$

Change Theme Language Pypy 3

```
def average(array):
1
2
         # your code goes here
3
         s = set(array)
         return f"{sum(s) / len(s):.3f}"
4
    if __name__ == '__main__':
6
7
        n = int(input())
8
        arr = list(map(int, input().split()))
        result = average(arr)
9
        print(result)
10
```



Blog | Scoring | Environment | FAQ | About Us | Helpdesk | Careers | Terms Of Service | Privacy Policy