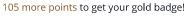
X



①

Rank: 311513 | Points: 295/400



Introduction to Sets *

Your Introduction to Sets submission got 10.00 points.

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Problem Submissions Leaderboard Editorial A

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, $m{N}$, the size of $m{arr}$.

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

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 Python 3
                                                                                              6
    def average(array):
1
2
         # your code goes here
         a=set(array)
3
4
        l=len(a)
5
         return (sum(a)/l)
6
7
    if __name__ == '__main__':
8
        n = int(input())
9
        arr = list(map(int, input().split()))
10
        result = average(arr)
11
        print(result)
```

		Line: 7 Col: 27
 Test against custom input	Run Code	Submit Code

You have earned 10.00 points!

You are now 105 points away from the gold level for your python badge. 42% 295/400



Congratulations

You solved this challenge. Would you like to challenge your friends?

Next Challenge

⊘ Test case 0	Compiler Message	
⊘ Test case 1 🕒	Success	
♂ Test case 2 🛆	Input (stdin) 1 10	Download
⊘ Test case 3 🕒	2 161 182 161 154 176 170 167 171 170 174	
♂ Test case 4 🖰	Expected Output	Download
⊘ Test case 5 △	1 169.375	