HackerRank

Mean, Var, and Std

165 more points to get your gold badge!

Rank: 532542 | Points: 235/400

You have successfully solved Mean, Var, and Std Сподел: Post

You are now 165 points away from the gold level for your python badge.

Try the next challenge | Try a Random Challenge

Problem | Submissions | Leaderboard | Editorial

RATE THIS CHALLENGE

mean

The mean tool computes the arithmetic mean along the specified axis.

```
import numpy

my_array = numpy.array([ [1, 2], [3, 4] ])

print numpy.mean(my_array, axis = 0)      #Output : [ 2.  3.]
print numpy.mean(my_array, axis = 1)      #Output : [ 1.5  3.5]
print numpy.mean(my_array, axis = None)    #Output : 2.5
print numpy.mean(my_array)              #Output : 2.5
```

By default, the axis is `None`. Therefore, it computes the mean of the flattened array.

var

The var tool computes the arithmetic variance along the specified axis.

```
import numpy

my_array = numpy.array([ [1, 2], [3, 4] ])

print numpy.var(my_array, axis = 0)       #Output : [ 1.  1.]
print numpy.var(my_array, axis = 1)       #Output : [ 0.25  0.25]
print numpy.var(my_array, axis = None)     #Output : 1.25
print numpy.var(my_array)               #Output : 1.25
```

By default, the axis is `None`. Therefore, it computes the variance of the flattened array.

std

The std tool computes the arithmetic standard deviation along the specified axis.

```
import numpy

my_array = numpy.array([ [1, 2], [3, 4] ])

print numpy.std(my_array, axis = 0)       #Output : [ 1.  1.]
print numpy.std(my_array, axis = 1)       #Output : [ 0.5  0.5]
print numpy.std(my_array, axis = None)     #Output : 1.11803398875
print numpy.std(my_array)               #Output : 1.11803398875
```

By default, the axis is `None`. Therefore, it computes the standard deviation of the flattened array.

Task

You are given a 2-D array of size NXM.

Your task is to find:

1. The mean along axis 1
2. The var along axis 0
3. The std along axis $None$

Input Format

The first line contains the space separated values of N and M.

The next N lines contains M space separated integers.

Output Format

First, print the mean.

Second, print the var.

Third, print the std.

Sample Input

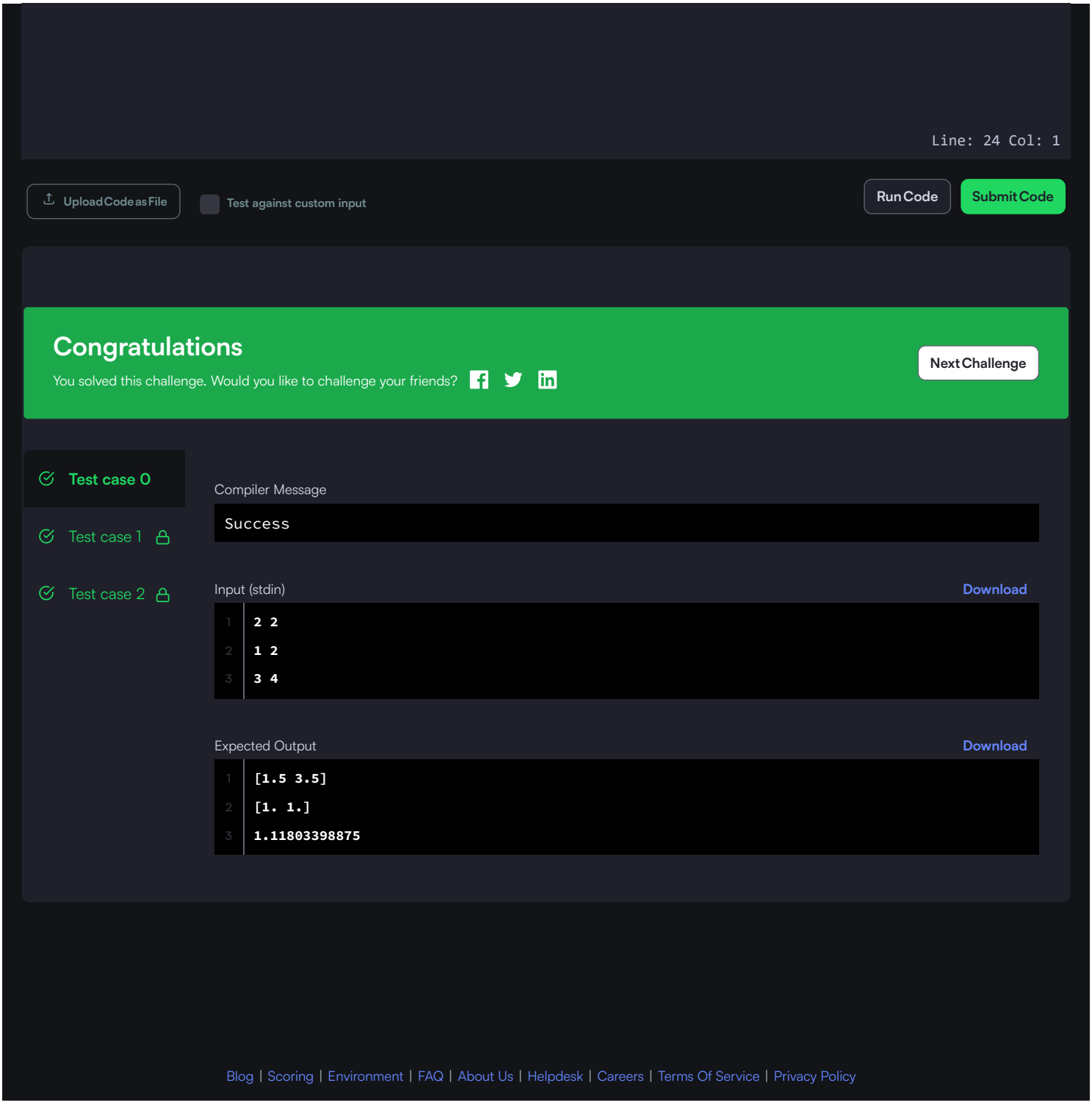
```
2 2
1 2
3 4
```

Sample Output

```
[ 1.5  3.5]
[ 1.  1.]
1.11803398875
```

Change Theme Language Pypy 3

```
# Link = https://www.hackerrank.com/challenges/np-mean-var-and-std/problem

import numpy

my_array = []

row, col = map(int, input().split(" "))

for i in range(row):
    my_array.append(list(map(int, input().split(" "))))

my_array = numpy.array(my_array)

mean_axis_one = numpy.mean(my_array, axis = 1)
var_axis_zero = numpy.var(my_array, axis = 0)
std_axis_none = numpy.std(my_array, axis = None)

print(mean_axis_one)
print(var_axis_zero)
if std_axis_none == 0:
    print('{:.1f}'.format(std_axis_none))
else:
    print('{:.11f}'.format(std_axis_none))

```


Line: 24 Col: 1
Upload Code as File
Test against custom input
Run Code
Submit Code
Congratulations
You solved this challenge. Would you like to challenge your friends?
Next Challenge
Test case 0
Test case 1
Test case 2
Compiler Message
Success
Input (stdin)
Download
2 2
1 2
3 4
Expected Output
Download
[1.5 3.5]
[1. 1.]
1.11803398875
Blog | Scoring | Environment | FAQ | About Us | Helpdesk | Careers | Terms Of Service | Privacy Policy