



Sum and Prod ★

109/115 challenges solved

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sum

The sum tool returns the sum of array elements over a given axis.

```
import numpy

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

print numpy.sum(my_array, axis = 0)      #Output : [4 6]
print numpy.sum(my_array, axis = 1)      #Output : [3 7]
print numpy.sum(my_array, axis = None)   #Output : 10
print numpy.sum(my_array)                 #Output : 10
```

By default, the axis value is None. Therefore, it performs a sum over all the dimensions of the input array.

prod

The prod tool returns the product of array elements over a given axis.

```
import numpy

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

print numpy.prod(my_array, axis = 0)      #Output : [3 8]
print numpy.prod(my_array, axis = 1)      #Output : [ 2 12]
print numpy.prod(my_array, axis = None)   #Output : 24
print numpy.prod(my_array)                 #Output : 24
```

By default, the axis value is None. Therefore, it performs the product over all the dimensions of the input array.

Task

You are given a 2-D array with dimensions $N \times M$.

Your task is to perform the **sum** tool over axis **0** and then find the **product** of that result.

Input Format

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

The next N lines contains M space separated integers.

Output Format

Compute the sum along axis **0**. Then, print the product of that sum.

Sample Input

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



Sample Output

24

Explanation

The sum along axis **0** = **[4 6]**

The product of this sum = **24**

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Language

Python 3



```
1 import numpy as np
2
3 n, m = map(int, input().split())
4 arr = np.array([input().split() for _ in range(n)], int)
5
6 sum_axis0 = np.sum(arr, axis=0)
7 print(np.prod(sum_axis0))
8
```

EMACS

Line: 8 Col: 1

Upload Code as File

☐ Test against custom input

Run Code

Submit Code

You have earned 20.00 points!

109/115 challenges solved.

95%



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)

Download

1	2 2
2	1 2
3	3 4

Expected Output

Download

1	24
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