Linear Algebra ★



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The NumPy module also comes with a number of built-in routines for linear algebra calculations. These can be found in the sub-module linalg.

linalg.det

The linalg.det tool computes the determinant of an array.

```
print numpy.linalg.det([[1 , 2], [2, 1]]) #Output : -3.0
```

linalg.eig

The linalg.eig computes the eigenvalues and right eigenvectors of a square array.

linalg.inv

The linalg.inv tool computes the (multiplicative) inverse of a matrix.

```
print numpy.linalg.inv([[1 , 2], [2, 1]]) #0utput : [[-0.33333333 0.666666667] # [ 0.666666667 -0.33333333]]
```

Other routines can be found here

Task

You are given a square matrix $m{A}$ with dimensions $m{N}$ X $m{N}$. Your task is to find the determinant. Note: Round the answer to 2 places after the decimal.

Input Format

The first line contains the integer $oldsymbol{N}$.

The next $m{N}$ lines contains the $m{N}$ space separated elements of array $m{A}$.

Output Format

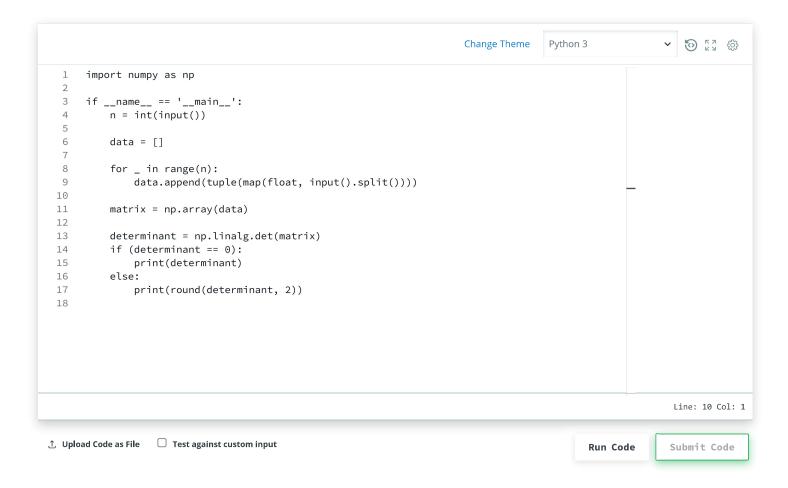
Print the determinant of $oldsymbol{A}$.

Sample Input

```
2
1.1 1.1
1.1 1.1
```

Sample Output

0.0

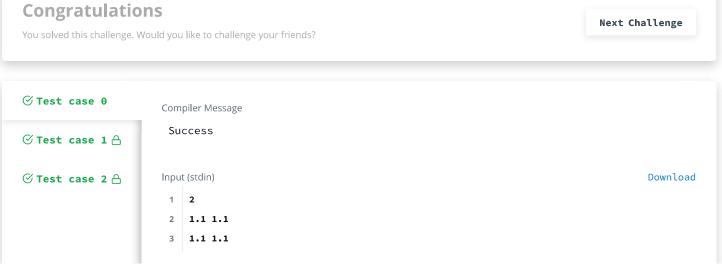


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70/115 challenges solved.

61%





Expected Output Download

1 0.0

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