

Inverse-of-matrix

' AIM:

to write a python program to find the inverse of the matrix

' ALGORITHM:

' Step 1:

Use import numpy as np.

' Step 2:

enter the input.

' Step 3:

use.append().

' Step 4:

use*to multiply two matrix

' Step 5:

print

' PROGRAM:

```
### NAME:MEIYARASI.V
### REGISTER NUMBER
import numpy as np
l1,l2=[],[]
r,c=int(input()),int(input())
for i in range(r):
    for j in range(c):
        num=int(input())
        l1.append(num)
    l2.append(l1)
    l1=[]
print(l2)
value1=np.array(l2)
inverse=np.linalg.inv(value1)
print(inverse)
```

OUTPUT:

Ex - Inverse of a matrix: Attempt

21005984/Inverse-of-matrix

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Ex07-CR-Find the...

Ex09-CR-Selection...

SEC

Grade 10.00 out of 10.00 (100%)

Finish review

Question 1

Correct

Mark 10.00 out of 10.00

Flag question

Write a python program to find the inverse of a nested array

For example:

Input	Result
3	[[1, 0, 5], [2, 1, 6], [3, 4, 0]]
3	[[[-24, 20, -5],
1	[18, -15, 4],
0	[5, -4, 1]]]
6	
2	
1	
6	
3	
4	
0	

Answer: (penalty regime: 0 %)

```
1 import numpy as np
2 l1,l2=[],[]
3 r,c=int(input()),int(input())
4 for i in range(r):
5     for j in range(c):
6         num=int(input())
7         l1.append(num)
8     l2.append(l1)
9     l1=[]
10 print(l2)
11 value=np.array(l2)
12 inverse=np.linalg.inv(value)
13 print(inverse)
```

	Input	Expected	Got	
✓	3	[[1, 0, 5], [2, 1, 6], [3, 4, 0]]	[[1, 0, 5], [2, 1, 6], [3, 4, 0]]	✓
	3	[[[-24, 20, -5],	[[[-24, 20, -5],	
	1	[18, -15, 4],	[18, -15, 4],	
	0	[5, -4, 1]]]	[5, -4, 1]]]	

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RESULT: