H   **PRACTICE**   **COMPETE**   **JOBS**   **LEADERBOARD**   🔍 Search   💬   🔔   👤 punnammani1 ⌄

Practice > Python > Numpy > Dot and Cross

Dot and Cross ☆

38/115 challenges solved

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Author	DOSHI
Difficulty	Easy
Max Score	20
Submitted By	8362

dot

The *dot* tool returns the dot product of two arrays.

```
import numpy

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

print numpy.dot(A, B)      #Output : 11
```

cross

The *cross* tool returns the cross product of two arrays.

```
import numpy

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

print numpy.cross(A, B)     #Output : -2
```

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f **🐦** **in**

Task

You are given two arrays A and B. Both have dimensions of NxN.

Your task is to compute their matrix product.

Input Format

The first line contains the integer N.
The next N lines contains N space separated integers of array A.
The following N lines contains N space separated integers of array B.

Output Format

Print the matrix multiplication of A and B.

Sample Input

```
2
1 2
3 4
```

```
1 2
3 4
```

Sample Output

```
[[ 7 10]
 [15 22]]
```

Current Buffer (saved locally, editable)   Python 3   ⌄

```
1  import numpy
2  n=int(input())
3  a=numpy.array([list(map(int,input().split())) for i in range(n)])
4  b=numpy.array([list(map(int,input().split())) for i in range(n)])
5  print(numpy.dot(a,b))
6
7
8
```

Line: 5 Col: 20

⬆ Upload Code as File   ☐ Test against custom input   **Run Code**   **Submit Code**

You have earned 20.00 points!
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Congratulations

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✓ Testcase 0   ✓ Testcase 1   ✓ Testcase 2

Input (stdin)	Download	Expected Output	Download

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

```
[[ 7 10]
 [15 22]]
```

Compiler Message

Success