

Dot and Cross

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
```

Task

You are given two arrays A and B . Both have dimensions of $N \times N$. 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]]
```

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Change Theme Language Python 3



```
1 import numpy as np
2
3 N = int(input())
4
5 A = np.array([list(map(int, input().split())) for _ in range(N)])
6 B = np.array([list(map(int, input().split())) for _ in range(N)])
7
8 print(np.matmul(A, B))
9
```