HackerRank

Inner and Outer

inner

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

```
import numpy
A = numpy.array([0, 1])
B = numpy.array([3, 4])
print numpy.inner(A, B) #Output : 4
```

outer

The *outer* tool returns the <u>outer product</u> of two arrays.

```
import numpy
A = numpy.array([0, 1])
B = numpy.array([3, 4])

print numpy.outer(A, B) #Output : [[0 0]
# [3 4]]
```

Task

You are given two arrays: \boldsymbol{A} and \boldsymbol{B} .

Your task is to compute their *inner* and *outer* product.

Input Format

The first line contains the space separated elements of array \boldsymbol{A} . The second line contains the space separated elements of array \boldsymbol{B} .

Output Format

First, print the inner product.

Second, print the outer product.

Sample Input

```
0 1
2 3
```

Sample Output

```
3
[[0 0]
[2 3]]
```