



# Inner and Outer ★

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## 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 [outer product](#) 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: **A** and **B**.

Your task is to compute their inner and outer product.

## Input Format

The first line contains the space separated elements of array **A**.

The second line contains the space separated elements of array **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]]
```

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Python 3



```
1 import numpy as np
2
3 if __name__ == '__main__':
4     data = tuple(map(int, input().split()))
5     a = np.array(data)
6
7     data = tuple(map(int, input().split()))
8     b = np.array(data)
9
10    print(np.inner(a, b))
11    print(np.outer(a, b))
12
```

Line: 12 Col: 1

[Upload Code as File](#) ☐ [Test against custom input](#)[Run Code](#)[Submit Code](#)

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60%



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### ✓ Test case 0

### ✓ Test case 1

### ✓ Test case 2

Compiler Message

Success

Input (stdin)

```
1 0 1
2 2 3
```

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Expected Output

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1	<b>3</b>
2	<b>[[0 0]</b>
3	<b>[2 3]]</b>

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