Inner and Outer

30 May 2025 07:21 AM

Inner and Outer

HackerRank

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

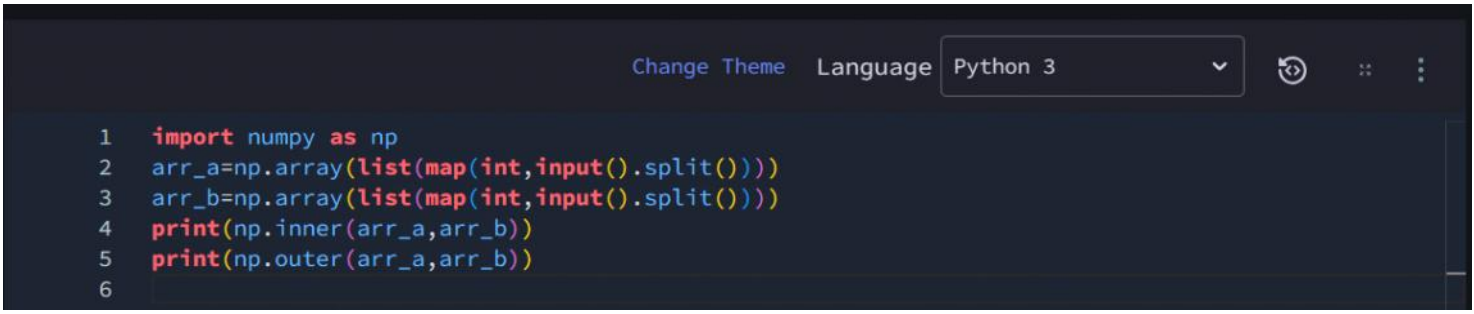
```
0 1
2 3
```

Sample Output

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

1/2

2/2


Change Theme
Language
Python 3
import numpy as np
arr_a=np.array(list(map(int,input().split())))
arr_b=np.array(list(map(int,input().split())))
print(np.inner(arr_a,arr_b))
print(np.outer(arr_a,arr_b))