

Concatenate

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HackerRank

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Two or more arrays can be concatenated together using the *concatenate* function with a tuple of the arrays to be joined:

```
import numpy

array_1 = numpy.array([1,2,3])
array_2 = numpy.array([4,5,6])
array_3 = numpy.array([7,8,9])

print numpy.concatenate((array_1, array_2, array_3))

#Output
[1 2 3 4 5 6 7 8 9]
```

If an array has more than one dimension, it is possible to specify the axis along which multiple arrays are concatenated. By default, it is along the first dimension.

```
import numpy

array_1 = numpy.array([[1,2,3],[0,0,0]])
array_2 = numpy.array([[0,0,0],[7,8,9]])

print numpy.concatenate((array_1, array_2), axis = 1)

#Output
[[1 2 3 0 0 0]
 [0 0 0 7 8 9]]
```

Task

You are given two integer arrays of size $N \times P$ and $M \times P$ (N & M are rows, and P is the column). Your task is to *concatenate* the arrays along axis 0.

Input Format

The first line contains space separated integers N , M and P .
The next N lines contains the space separated elements of the P columns.
After that, the next M lines contains the space separated elements of the P columns.

Output Format

Print the concatenated array of size $(N + M) \times P$.

Sample Input

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

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

Sample Output

```
[[1 2]
 [1 2]
 [1 2]
 [1 2]
 [3 4]
 [3 4]
 [3 4]]
```

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```
1 # Enter your code here. Read input from STDIN. Print output to STDOUT
2 import numpy as np
3 x,y,z=input().split()
4 arr=[]
5 for i in range(int(x)+int(y)):
6     arr.append((list(map(int,input().split()))))
7 print(np.array(arr))
```