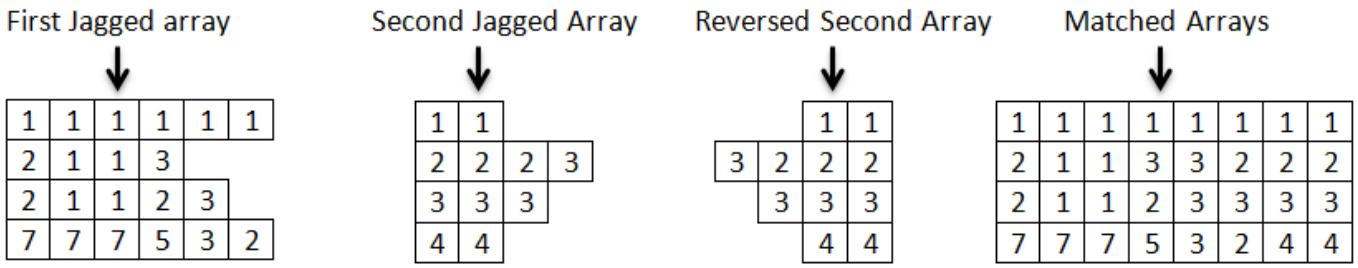
Problem 3 – Lego Blocks

You are given two **jagged arrays**. Each array represents a **Lego block** containing integers. Your task is first to **reverse** the second jagged array and then check if it would **fit perfectly** in the first jagged array.



The picture above shows exactly what fitting arrays mean. If the arrays fit perfectly you should **print out** the newly made rectangular matrix. If the arrays do not match (they do not form a rectangular matrix) you should print out the **number of cells** in the first array and in the second array combined. The examples below should help you understand more the assignment.

Input

The first line of the input comes as an **integer number n** saying how many rows are there in both arrays. Then you have **2 * n** lines of numbers separated by whitespace(s). The first **n** lines are the rows of the first jagged array; the next **n** lines are the rows of the second jagged array. There might be leading and/or trailing whitespace(s).

Output

You should print out the combined matrix in the format:

```
[elem, elem, …, elem]
[elem, elem, …, elem]
[elem, elem, …, elem]
```

If the two arrays do not fit you should print out : `The total number of cells is: count`

Constraints

- The number n will be in the range [2…10].
- Time limit: 0.3 sec. Memory limit: 16 MB.

Examples

Input	Output
2 1 1 1 1 1 1 2 1 1 3 1 1 2 2 2 3	[1, 1, 1, 1, 1, 1, 1, 1] [2, 1, 1, 3, 3, 2, 2, 2]
2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The total number of cells is: 14