@LeetCode

In MATLAB, there is a very useful function called 'reshape', which can reshape a matrix into a new one with different size but keep its original data.

You're given a matrix represented by a two-dimensional array, and
two **positive** integers **r** and **c**representing the **row** number and **column** number of the wanted reshaped matrix, respectively.

The reshaped matrix need to be filled with all the elements of the original matrix in the same **row-traversing** order as they were.

If the 'reshape' operation with given parameters is possible and legal, output the new reshaped matrix; Otherwise, output the original matrix.

Example 1:

```
Input:

nums =

[[1,2],

 [3,4]]

r = 1, c = 4

Output:

[[1,2,3,4]]

Explanation:
The row-traversing of nums is [1,2,3,4]. The new reshaped matrix is a 1 * 4 matrix,
fill it row by row by using the previous list.
```

Example 2:

```
Input:

nums =

[[1,2],

 [3,4]]

r = 2, c = 4

Output:
```

```
[[1,2],

 [3,4]]
```

Explanation:
There is no way to reshape a 2 * 2 matrix to a 2 * 4 matrix. So output the original matrix.

Note:

1. The height and width of the given matrix is in range [1, 100].
2. The given r and c are all positive.