# A. Dividing Orange

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

One day Ms Swan bought an orange in a shop. The orange consisted of $n \cdot k$ segments, numbered with integers from 1 to $n \cdot k$.

There were $k$ children waiting for Ms Swan at home. The children have recently learned about the orange and they decided to divide it between them. For that each child took a piece of paper and wrote the number of the segment that he would like to get: the $i$-th $(1 \le i \le k)$ child wrote the number $a_i$ $(1 \le a_i \le n \cdot k)$. All numbers $a_i$ accidentally turned out to be different.

Now the children wonder, how to divide the orange so as to meet these conditions:

- each child gets exactly $n$ orange segments;
- the $i$-th child gets the segment with number $a_i$ for sure;
- no segment goes to two children simultaneously.

Help the children, divide the orange and fulfill the requirements, described above.

## Input

The first line contains two integers $n, k$ $(1 \le n, k \le 30)$. The second line contains $k$ space-separated integers $a_1, a_2, ..., a_k$ $(1 \le a_i \le n \cdot k)$, where $a_i$ is the number of the orange segment that the $i$-th child would like to get.

It is guaranteed that all numbers $a_i$ are distinct.

## Output

Print exactly $n \cdot k$ distinct integers. The first $n$ integers represent the indexes of the segments the first child will get, the second $n$ integers represent the indexes of the segments the second child will get, and so on. Separate the printed numbers with whitespaces.

You can print a child's segment indexes in any order. It is guaranteed that the answer always exists. If there are multiple correct answers, print any of them.

### Examples

| input |
| --- |
| 2 2<br>4 1 |
| **output** |
| 2 4<br>1 3 |

| input |
| --- |
| 3 1<br>2 |
| **output** |
| 3 2 1 |