

8133 Winning ICPC

There are N teams (numbered from 1 to N) and M problems (numbered from 1 to M) in this year's ICPC. The j -th problem has T_j testcases. Surprisingly, every team submitted exactly one solution to every problem. The i -th team managed to solve $S_{i,j}$ testcases on the j -th problem.

A team solved a problem only if the team managed to solve **ALL** testcases on that problem. The winning team is the team with the most number of problems solved. If there are more than one team with the most number of problems solved, then the winning team is the team with the smallest index among those teams.

Determine the index of the winning team.

Input

The input file contains several test cases, each of them as described below.

The first line contains two integers: $N M$ ($1 \leq N, M \leq 100$) in a line denoting the number of teams and the number of problems. The second line contains M integers: $T_1 T_2 \cdots T_M$ ($0 \leq T_i \leq 100$) in a line denoting the number of testcases. The next N following lines, each contains M integers; the j -th integer on the i -th line is $S_{i,j}$ ($0 \leq S_{i,j} \leq T_j$) denoting the number of solved testcases by the i -th team for the j -th problem.

Output

For each test case, the output contains the index of the winning team, in a line.

Note for the Samples:

Explanation for the 1st sample case

On the first sample, the first and the third team did not solve any problem, and the second team solved the first problem. Therefore, the second team is the winner.

Explanation for the 2nd sample case

On the second sample, the first team solved the second problem, the second team solved the first problem, and the third team did not solve any problem. Since the first team has a smaller index than the second team, the first team is the winner.

Explanation for the 3rd sample case

On the third sample, there is only one team thus the winner is obvious.

Sample Input

```
3 2
10 20
0 19
10 0
9 19
3 2
10 20
0 20
10 0
9 19
```

1 1
1
0

Sample Output

2
1
1