

TLE '16 Contest 8 P5 - Prom Night

Every male competitive programmer knows that finding a prom date is both more competitive and more difficult than any programming competition. It's almost time for prom, but the CS nerd still doesn't have a prom date! Of course, he really wants to take the girl out. Unfortunately, he knows this won't happen, so he won't go to the event. Despite this, he is still interested in his options for prom.

There are N males and M females in the school. Each male is willing to go to prom with a non-negative number of females. Every student is given an identification number. Males are numbered from 1 to N and females are separately numbered from 1 to M . The CS nerd's ID number is 1 (and he is a male).



A good prom-alternate activity (don't be a normie!).

Other males will always get to choose a single female for their prom date before the CS nerd does. Once a female is chosen, another male cannot choose her. Males will always try to choose one female they are willing to go to prom with, but this is not always possible. The CS nerd then wonders to himself: "What is the minimum number of females I can choose from?" Can you help him out?

Constraints

In all subtasks:

$$1 \leq N, M$$

Subtask	Points	N, M
1	20	$N, M \leq 5$
2	30	$N, M \leq 10$
3	50	$N, M \leq 100$

Input Specification

The first line of input will contain two integers, N and M .

N lines of input follow. The first integer will be t_i ($0 \leq t_i \leq M$). t_i space-separated integers follow, specifying the ID numbers of the females the i^{th} male is willing to go to prom with. All of the ID numbers on each line will be distinct.

Output Specification

Output the minimum number of females that the CS nerd can choose from.

Sample Input 1

```
2 2
1 1
2 1 2
```

Sample Output 1

```
0
```

Explanation for Sample Output 1

If male 2 chooses female 1, the CS nerd cannot choose any female.

Sample Input 2

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

Sample Output 2

```
1
```

Sample Input 3

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

Sample Output 3

