Bangladesh Olympiad in Informatics
Preliminary Round
February 7, 2026

admission
Preliminary Tasks
English

Admission War

Samira sat for her medical college admission exam last week. Today, her exam results has been published. Samira is eager to know which college she is getting in.

In Samira's country, there are M medical colleges, and N students sat for the admission exam. The ith college has C_i seats. Each candidate gets a medical college assigned in the following way:

1. Candidate submits a ranked preference list of length M, from most preferred to least.
2. Candidate sits for the exam and gets his/her score.
3. The admission system assigns medical colleges to the candidates based on merit. That is, the higher the score, the preferential treatment he/she gets. Or, simply, a candidate gets his/her college assigned using their preference list only after everyone scoring more than him/her got their college assigned.

As said earlier, Samira is eager to know. A bit too eager. So much that she hacked into the admission system, and got everyone's exam score and preference list. Samira is the Xth entry in the list. Now, since police is chasing Samira, she needs you to figure out which college she'll get into.

Input

- line 1: $N\ M\ X$
- line 2: $C_1\ C_2\ C_3 \dots C_M$
- line $2i + 1$ (for all $1 \le i \le N$): S_i; score of ith candidate
- line $2i + 2$ (for all $1 \le i \le N$): $P_{i,1}\ P_{i,2}\ P_{i,3} \dots P_{i,M}$; ranked preference list of ith candidate

Output

- line 1: The college Samira would get assigned (e.g. if Samira would get $5th$ college, output 5)

Constraints

- $1 \le N, M \le 2000$
- $1 \le X \le N$
- $1 \le C_i \le N$ for all $1 \le i \le M$
- $\sum_{i=1}^{M} C_i \ge N$
- $0 \le S_i \le 1,000,000,000$ for all $1 \le i \le N$, all S_i are **distinct**
- For all $1 \le i \le N$, $P_{i,1}\ P_{i,2}\ P_{i,3} \dots P_{i,M}$ is a permutation of numbers $1\ 2\ 3 \dots M$

Subtasks

Subtask	Score	Additional constraints
1	9	$N \leq 10, M \leq 2$
2	13	$N, M \leq 10$
3	4	$M = 1$
4	6	$N = 1$
5	13	$N \leq 100, M = 2$
6	19	$N, M \leq 100$
7	10	$M = 2$
8	26	No additional constraints

Examples

Example 1

```
3 2 3
2 1
5
1 2
1
2 1
2
1 2
```

The correct output is:

```
1
```