POI
Full Feedback Problem

The local Plovdiv Olympiad in Informatics (POI) was held according to the following unusual rules. There were **N** contestants and **T** tasks. Each task was graded with only one test case, therefore for every task and every contestant there were only two possibilities: either the contestant solved the task, or the contestant did not solve the task. There was no partial scoring on any task.

The number of points assigned to each task was determined after the contest and was equal to the number of contestants that did not solve the task. The score of each contestant was equal to the sum of points assigned to the tasks solved by that contestant.

Philip participated in the contest, but he is confused by the complicated scoring rules, and now he is staring at the results, unable to determine his place in the final standings. Help Philip by writing a program that calculates his score and his ranking.

Before the contest, the contestants were assigned unique IDs from 1 to **N** inclusive. Philip's ID was **P**. The final standings of the competition list the contestants in descending order of their scores. In case of a tie, among the tied contestants, those who have solved more tasks will be listed ahead of those who have solved fewer tasks. In case of a tie by this criterion as well, the contestants with equal results will be listed in ascending order of their IDs.

TASK
Write a program that, given which problems were solved by which contestant, determines Philip's score and his rank in the final standings.

CONSTRAINTS
$1 \le N \le 2,000$ The number of contestants
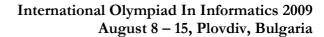$1 \le T \le 2,000$ The number of tasks
$1 \le P \le N$ Philip's ID

INPUT
Your program must read from standard input the following data:
- The first line contains the integers **N**, **T** and **P**, separated by individual spaces.
- The next **N** lines describe which tasks were solved by which contestant. The kth of these lines describes which tasks were solved by the contestant with ID **k**. Each such line contains **T** integers, separated by spaces. The first of these numbers denotes whether or not contestant **k** solved the first task. The second number denotes the same for the second task and so on. These **T** numbers are all either 0 or 1, where 1 means that contestant **k** solved the corresponding task, and 0 means that he or she did not solve it.

OUTPUT
Your program must write to standard output a single line with two integers separated by a single space. First, the score that Philip got on the POI competition. Second, Philip's rank in the final standings. The rank is an integer between 1 and **N** inclusive, with 1 denoting the contestant

listed at the top (i.e., a contestant who has the highest score) and **N** to the one listed at the bottom (i.e., a contestant with the lowest score).

GRADING
For a number of tests, worth a total of 35 points, no other contestant will have the same score as Philip.

EXAMPLE

Sample Input	Sample Output
5 3 2 0 0 1 1 1 0 1 0 0 1 1 0 1 1 0	3 2

The first problem was unsolved by only one contestant, so it is worth 1 point. The second problem was unsolved by two contestants, so it is worth 2 points. The third problem was unsolved by four contestants, so it is worth 4 points. Thus the first contestant has a score of 4; the second contestant (Philip), the fourth and the fifth contestants all have a score of 3; and the third contestant has a score of 1. Contestants 2, 4 and 5 are all tied according to the first tie-break rule (number of problems solved), and according to the second tie-break rule (smaller ID) Philip ranks before the others. Thus Philip's rank in the final standings is 2. He is only behind the contestant with ID 1.