Boyle is rating pizza restaurants. He has c categories in which he gives scores from 1 to 5 (like crust, sauce, cheese, toppings etc.). He wants to choose the best based on the average score. Can you help him?

Input

The first line of the input contains n and c $(1 \le n, c \le 100)$ – the number of restaurants and the number of categories. Each of the next n lines contains c integers (1 to 5), the scores of a restaurant.

Output

Your program should print a single number, the index of the winning restaurant, which has the highest average score. The restaurants are indexed from 1. If there is a tie at the highest score, the restaurant with the smaller index wins.

Example

input

```
4 5
1 1 2 1 1
5 3 1 3 1
4 1 5 4 3
3 3 2 2 5
```

output

```
3
```

Note

Explanation: the averages of the restaurants are: 1.2, 2.6, 3.4, 3. The 3rd restaurant is the best with an average score of 3.4.