CODEFORCES β
Sponsored by Telegram

🇬🇧 🇷🇺
Enter | Register

HOME   CONTESTS   GYM   PROBLEMSET   GROUPS   RATING   API   CANADA CUP 🏆   SECTIONS

PROBLEMS   SUBMIT   STATUS   STANDINGS   CUSTOM TEST

A. Marks

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

Vasya, or Mr. Vasily Petrov is a dean of a department in a local university. After the winter exams he got his hands on a group's gradebook.

Overall the group has n students. They received marks for m subjects. Each student got a mark from 1 to 9 (inclusive) for each subject.

Let's consider a student the *best at some subject*, if there is no student who got a higher mark for this subject. Let's consider a student *successful*, if there exists a subject he is the *best at*.

Your task is to find the number of *successful* students in the group.

Input

The first input line contains two integers n and m ($1 \le n, m \le 100$) — the number of students and the number of subjects, correspondingly. Next n lines each containing m characters describe the gradebook. Each character in the gradebook is a number from 1 to 9. Note that the marks in a rows are not sepatated by spaces.

Output

Print the single number — the number of *successful* students in the given group.

Examples

input
3 3 223 232 112
output
2

input
3 5 91728 11828 11111
output
3

Note

In the first sample test the student number 1 is the best at subjects 1 and 3, student 2 is the best at subjects 1 and 2, but student 3 isn't the best at any subject.

In the second sample test each student is the best at at least one subject.

→ **Virtual participation**

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

[Start virtual contest]

→ **Problem tags**

[implementation]

No tag edit access

→ **Contest materials**

- Announcement   ✕
- Tutorial   ✕