ACM ICPC Team

You are given a list of N people who are attending ACM-ICPC World Finals. Each of them are either well versed in a topic or they are not. Find out the maximum number of topics a 2-people team can know. And also find out how many teams can know that maximum number of topics.

Input Format

The first line contains two integers N and M separated by a single space, where N represents the number of people, and M represents the number of topics. N lines follow.
Each line contains a binary string of length M. In this string, 1 indicates that the i_{th} person knows a particular topic, and 0 indicates that the i_{th} person does not know the topic. Here, $1 \leq i \leq 2$, and it denotes one of the persons in the team.

Output Format

On the first line, print the maximum number of topics a 2-people team can know.
On the second line, print the number of 2-people teams that can know the maximum number of topics.

Constraints

$2 \leq N \leq 500$

$1 \leq M \leq 500$

Sample Input

```
4 5
10101
11100
11010
00101
```

Sample Output

```
5
2
```

Explanation

(1, 3) and (3, 4) know all the 5 topics. So the maximal topics a 2-people team knows is 5, and only 2 teams can achieve this.