# **ACM ICPC Team**



## **Problem Statement**

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-person 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. If the  $i_{th}$  line's  $j_{th}$  character is 1, then the  $i_{th}$  person knows the  $j_{th}$  topic and doesn't know the topic otherwise.

## **Output Format**

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

#### Constraints

 $2 \le N \le 500$  $1 \le M \le 500$ 

## Sample Input

#### Sample Output

5 2

#### Explanation

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