

ACM ICPC Team



Problem	Submissions	Leaderboard	Discussions	Editorial	Topics	

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.

Note Suppose a, b, and c are three different people, then (a,b) and (b,c) are counted as two different teams.

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; otherwise, he doesn't know the topic.

Constraints

 $2 \le N \le 500$

 $1 \le M \le 500$

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.

Sample Input

4 5

10101 11100

11010

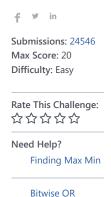
00101

Sample Output

5 2

Explanation

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



More Current Buffer (saved locally, editable) & • • C# 1 using System; 2 using System.Collections.Generic; 3 using System.IO; using System.Linq; 5 ▼ class Solution { 6 static void Main(String[] args) { 7 ' 8 9 string[] tokens_n = Console.ReadLine().Split(' '); int n = Convert.ToInt32(tokens_n[0]); 10 11 int m = Convert.ToInt32(tokens_n[1]); 12 string[] topic = new string[n]; 13 for (int topic_i = 0; topic_i < n; topic_i++)</pre> 14 🔻 { 15 topic[topic_i] = Console.ReadLine(); } 16 17 18 //int n = 4, m = 5;"10101", 19 //string[] topic = { 20 // "11100", "11010", 21 // 22 // "00101"}; 23 24 int ans = 0; 25 int max_ancho = 0; 26 27 int person_teams2 = 0; 28 29 for (int i = 0; i < n - 1; i++) 30 ▼ { 31 for (int j = i + 1; j < n; j++) 32 🔻 { 33 int k; 34 int ancho = 0; 35 for (k = 0; k < m; k++)36 ▼ 37 if (topic[i][k] == '1' || topic[j][k] == '1') 38 ▼ { 39 ancho++; 40 41 } 42 //max_ancho = Math.Max(max_ancho, ancho); 43 if (ancho > max_ancho) 44 • 45 max_ancho = ancho; 46 person_teams2 = 1; 47 48 else if (ancho == max_ancho) 49 ▼ { 50 person_teams2++; 51 } 52 } } 53 54 55 56 Console.WriteLine(max_ancho); 57 Console.WriteLine(person_teams2); 58 59 60 61 } 62 } 63 Line: 45 Col: 25 Test against custom input Run Code Submit Code **1** Upload Code as File

Congrats, you solved this challenge!

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