Problem K
Exam Grading

Time Limit: 1 seconds

Memory Limit: 64 megabytes

Professor T is grading the final exam of his students. The exam is in True/False format and each question is worth one point. Professor T wants to make the grades of his students look as good as possible, so he modifies the answers so that the lowest grade in his class is as high as possible.

Your task is to help professor T find the highest possible lowest grade that he can achieve.

Input

The first line contains two integers n and k, where n is the number of students, and k is the number of True/False questions on the exam.

Each of the next n lines contains a string of length k, consisting only of upper-case 'T' (for True) and upper case 'F' (for False). This string indicates the answers that a student has submitted, in the order the questions were given.

Constraints:

- $1 \leq n \leq 1000$
- $1 \leq k \leq 10$

Output

Output contains a single integer, which is the best possible lowest grade in the class.

Sample Input	Sample Output
5 4 TFTF TFFF TFTT TFFT TFTF	2
3 5 TFTFT TFTFT TFTFT	5