Problem I
The IDs

Time Limit: 1 second

Memory Limit: 256 megabytes

Cuoi works as a manager in a company where employees are assigned an ID consisting of 4 alphanumeric characters. He thinks that some IDs are too similar, therefore one employee might mistakenly input an ID of another employee and the system will not recognize. Cuoi wants to address this problem, but before that, he has to obtain some statistics.

Given the list of IDs and an integer *D*, you need to find the number of pairs of IDs that differ in exactly *D* positions.

Input

The first line of input contains two integers, N ($2 \le N \le 50000$) and D ($1 \le D \le 4$), the number of employees and the number of different positions respectively.

For the next N lines, each line contains an ID. An ID is made of 4 alphanumeric characters, which is either a character in the English alphabet from "a" to "z", or a digit from 0 to 9. No two IDs will be the same.

Output

The output consists of a single integer, number of words with value at most N, modulo $10^9 + 7$.

Sample Input	Sample Output
4 1 0000 a010 0202 a0e2	0
4 2 0000 a010 0202 a0e2	3

Explanation

In the first example, no two IDs differ in exactly 1 position. In the second example, there are 3 pairs that differ in 2 positions, those are: (0000, a010), (0000, 0202), and (a010, a0e2).