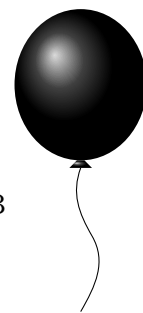# E Amoeba

Little Romeo likes cosmic amoebas a lot. He has a colony of all kinds of amoebas. Recently he received a rectangular table as a gift from his mother. He decided to place one of his amoebas on it. The table is a grid of square 1×1 cells, and each cell is occupied by either matter or antimatter. The usual shape of a cosmic amoeba is a convex set of cells (see explanation below). Romeo can place it on the table as long as every cell of the table is either completely covered by part of the amoeba or completely uncovered, and no part of the amoeba lies outside of the table. It is a well-known fact that cosmic amoebas cannot lie on top of matter, so every cell of the table covered by the amoeba must only contain antimatter.

A set of cells is called connected if there exists a path between each two cells from the set which satisfies the following restrictions:

- All cells in the path belong to this set.

- Each pair of neighboring cells in the path shares a common edge.

A set is called convex if it is satisfies the following conditions:

- It is connected.

- If any two cells in the set lie in the same row then all cells in that row between them also belong to the set.

- If any two cells in the set lie in the same column then all cells in that column between them also belong to the set.

You are given a table containing '0' and '1', where '0' represents antimatter, and '1' represents matter. Romeo wonders how many ways there are to place a single amoeba on the table. Find this number modulo $998\,244\,353$. Two ways are considered different if and only if there is a table cell that is covered in one but not the other.

Input

The first line contains two integers n and m — the number of rows and columns in the table, respectively ($2 \le n, m \le 100$).

Each of following n lines contains m characters: '0' or '1', where '0' represents antimatter, and '1' represents matter.

Output

Print a single integer: the number of ways to place a single amoeba on the table modulo $998\,244\,353$.

SAMPLES

Sample input 1	Sample output 1
2 2 00 00	13

Sample input 2	Sample output 2
4 4 0000 0110 0110 0000	72

Sample input 3	Sample output 3
4 2 01 11 01 11	2

Sample input 4	Sample output 4
2 4 0000 0000	90