

Little Bob is a famous builder. He bought land and wants to build a house. Unfortunately, the problem is the land's terrain, it has a variable elevation.

The land is shaped like a **rectangle**, N meters wide and M meters long. It can be divided into $N \cdot M$ squares (see the image). Bob's house will be shaped like a **rectangle** that has sides **parallel** with the land's edges and its vertices **coincide** with the vertices of the squares. All the land covered by Bob's house must be of **equal elevation** to prevent it from collapsing.

2	2	2
2	2	1
1	1	1
2	1	2
1	2	1

*The land divided into squares.
Two possible locations of house are marked with red and blue.*

Calculate the number of ways Bob can build his house!

INPUT

The first line of input contains integers N and M ($1 \leq N, M \leq 1000$). Each of the following N lines contains M integers a_{ij} ($1 \leq a_{ij} \leq 10^9$), respectively the height of each square of land.

Warning: Please use faster input methods because the amount of input is very large. (For example, use `scanf` instead of `cin` in C++ or `BufferedReader` instead of `Scanner` in Java.)

OUTPUT

The first and only line of output must contain the required number from the task statement.

SCORING

In test cases worth 20% of total points, it will hold $N, M \leq 50$.

In test cases worth 60% of total points, it will hold $N, M \leq 500$.

SAMPLE TESTS

input 5 3 2 2 2 2 2 1 1 1 1 2 1 2 1 2 1	input 4 3 1 1 1 1 1 1 2 2 2 2 2 2
output 27	output 36

Clarification of the first example: Some of the possible house locations are rectangles with opposite vertices in $(0,0)$ - $(1,1)$, $(0,0)$ - $(0,2)$ (height 2) i $(2,0)$ - $(2,2)$, $(1,2)$ - $(2,2)$ (height 1). The first number in the brackets represents the row number and the second one the column number (0-indexed).