Options

time limit per test:0.6 seconds
memory limit per test: 64 megabytes
input: standard input
output: standard output

Michael spends his summer holiday at his grandparents' house, in the Danube Delta. On the first day, he goes fishing with his father to the place where he used to go every day during his childhood. Michael realises that the chosen route is not the only option for covering the distance from his grandparents' house to the fishing place, so, once he has visited the entire region together with his grandfather, he wonders in how many distinct ways he can cover the distance from their home to the fishing place. The region that Michael knows has a rectangular shape, with the rows numbered from 1 to L and the columns numbered from 1 to C. The values 1 represent areas of land and the values 0 represent areas covered by water. Michael can travel only by land and with the following restriction: from the area (i, j) he can go only in one of the areas $(i-1, j+1)$, $(i, j+1)$, $(i+1, j+1)$ – obviously, only if there is land and he does not leave the region. Being an intelligent boy, when Michael visits the surroundings with his grandfather, he notices the following thing: the columns of the matrix which codifies the region are identically repeated every K. Thus, the column 1, the column K+1, the column 2*K+1 ... are identical. The column 2, the column K+2, the column 2*K+2 ... are identical ... the column K-1, the column K+ (K-1), the column 2*K + (K-1) ... are identical. Two columns c1 and c2 are identical if the element on the position $(i, c1)$ is equal to the one on the position $(i, c2)$ for any i from 1 to L.

Task

Knowing the coordinates of the place where the grandparents' house lies and the coordinates of the fishing place that Michael's father showed him, determine the number of options for covering the distance between them. Two routes are considered distinct if, by writing the sequences of the rows which are visited (in the increasing order of the columns) they differ at least in one position.

Input

The first line will contain the numbers L and K (separated by a space), representing the number of rows of the region and the number K with the signification mentioned above. On each of the following L lines, there are K numbers which can be 0 or 1, not separated by spaces. On the line L+2 there are 2 numbers X and C (separated by a space) representing the coordinates (X, C) of the fishing place. The grandparents' house is considered (1,1).

Output

The first line contains a single natural number which represents the requested modulo 666013 value.

Constraints

$2 \le L, K \le 100$

$1 \le X \le 100$

$2 \le C \le 10^{15}$

$C \le 1000$ for 20% of the tests

Example

input	output
4 3 111 011 110 111 1 4	4