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# Sappers

Input file:           C.in  
Output file:         C.out  
Time limit:          2 seconds  
Memory limit:       256 megabytes

Two sappers have to defuse all explosive mines in the minefield. Field can be described as a table  $n \times m$  ( $n$  rows and  $m$  columns), and each cell can contain at most one mine. Rows of the table are numerated from 1 to  $n$  from top to bottom, columns are numerated from 1 to  $m$  from left to right. Sappers want to divide the field into two components *equally* so that the the difference of the number of mines in each component is as less as possible.

Dividing the field into two parts *equally* means:

1. Each cell belongs to either the 1<sub>st</sub> sapper or the 2<sub>nd</sub> sapper (let's denote them as color 1 and 2 respectively).
2. Any cell of color  $x$  can be reached by any other cell of color  $x$  by using only cells of color  $x$  if we can move only to adjacent cells (two cells are considered to be adjacent if they have common edge).
3. Two components are same. It means that it's possible to rotate some of them multiple times so that they will be exactly same components.

It's guaranteed that the number  $m$  is an even number.

## Input

The first line contains two integers  $n(1 \leq n \leq 1000)$  and  $m(1 \leq m \leq 1000)$ .

Next  $n$  lines contain  $m$  characters — description of the field. If the character is «.», then current cell is empty. If the character is «\*», then there is an explosive mine in that cell.

It's guaranteed that the number  $m$  is an even number.

## Output

Output  $n$  rows with  $m$  characters «1» or «2» which shows which sapper that cell belongs to. If there are more than one answer, output any of them.

## Scoring

In this problem, there are 100 tests.

For each correct answer for the test, you'll get 1 point.

## Example

C.in	C.out
5 8	11111111
**.....*	22222211
...*. *..	22112211
*..*.....	22111111
*....*..	22222222
.....*	