

<codeClash>2019

Code Clash Official Problem #6 'Mines'

Problem statement

You may be familiar with the classic desktop game called Minesweeper. Minesweeper is played on a large grid filled with mines and empty spaces. The empty cells of the grid adjacent to a mine have a number printed on them warning of the nearby danger. The number on the cell represents the number of adjacent mines (including diagonal mines). Mines are represented by an asterisk (*) and empty cells with no adjacent mines are represented by a hyphen (-). You are provided with a grid of mines and you must perform a transformation on this grid to include the numbers printed on adjacent cells.

The first line of input will contain two integers separated by a space. The first integer will be the number of columns and the second integer will be the number of rows in the playing board. The grid will follow, filled only with hyphens and asterisks. Your program should output a transformation of that same grid with a transformation. Each empty cell that is adjacent to a mine must be populated with a digit from 1-9 representing the number of adjacent mines. Other cells will remain unchanged.

Sample test case

Sample input and output for this problem:

Input	Output
30 12	
-----*-----**-----*--*	-----1*1-111-1**1-111--12*11*
-----*-----*-----*-----*	--111-111-1*1-1221-1*1-12*2111
---*-----*-----*-----	--1*1-----111-----11112*21111
-----*-----*-----*	-1221-111111-----111-1*2112*2
--*-----*--*-----*-----*--*	-1*1--1*11*1-----1*1-111-1*4*
-----*-----*-----*	1221--111222-----111----123*3
-*-----*-----*-----*--*	1*1-----1*1-----111---1*22*
-----*-----*-----*	111--111-111---12222*1---22222
-----*-----**-*-----*--*	-----1*211-----13**3*31---1*11*
-----*-----**-*-----*	-----112*1-----1**66*3----11111
-----*-----*-----*	-----1221-----13****2-----11
-----*-----*-----*	-----1*1-----123321-----1*