Mountain Waterfall
Problem ID: mountainwaterfall

Leo is on holiday and has been enjoying watching water fall downhill. The hills that Leo has been watching have large rocks on them. The water splits and flows left and right when it hits a large rock. It tends to make an interesting vista.

A hill that Leo watches can be described by a 2-dimensional grid of squares with R rows and C columns. Some squares contain rocks (denoted by the character '○'), others contain water (denoted by the character '$\star$'), and the rest are empty (denoted by the character '.'). Water always flows to the cells directly under it unless it hits a rock. If it hits a rock, the flow splits and goes both left and right. The first row, last row, first column, and last column are always completely filled with rocks.

For example, consider this hill:

```
○○○○○○○      ○○○○○○○
○*....○      ○***..○
○○○...○  →   ○○○*..○
○.....○      ○..*..○
○.....○      ○*****○
○○○○○○○      ○○○○○○○
```

First, the water will split left and right, since there is a rock under it. It can only flow right, however, since there is a rock to the left. This continues until it can flow down again. Once it hits to bottom, it flows both left and right.

Given the initial configuration of the hill, where will the water flow?

Input

The first line of input contains two integers R ($3 \leq R \leq 50$), which is the number of rows, and C ($3 \leq C \leq 50$), which is the number of columns.

The next R lines describe the hill. Each of these lines contains a string of length C containing only the characters '.', '○', and '$\star$'. A '.' represents an empty cell, a '○' represents a cell with a rock, and a '$\star$' represents a cell with water. The topmost row, bottomost row, leftmost column, and rightmost column only contain '○'.

Output

Display a grid of characters showing where water will flow.

Sample Input 1

```
6 7
○○○○○○○
○*....○
○○○...○
○.....○
○.....○
○○○○○○○
```

Sample Output 1

```
○○○○○○○
○***..○
○○○*..○
○..*..○
○*****○
○○○○○○○
```

Sample Input 2

```
5 5
○○○○○
○.*.○
○.○.○
○○.○○
○○○○○
```

Sample Output 2

```
○○○○○
○***○
○*○*○
○○.○○
○○○○○
```

Sample Input 3

```
3 3
ooo
o.o
ooo
```

Sample Output 3

```
ooo
o.o
ooo
```

Sample Input 4

```
5 5
ooooo
o..*o
ooooo
o*..o
ooooo
```

Sample Output 4

```
ooooo
o***o
ooooo
o***o
ooooo
```