**Self-Destructing Cells**

Mary has discovered a new species of cellular life! This cell lives for a given moment before self-destructing and taking those around it with it. The thing is, they also seem to grow from empty cells. After a certain amount of time passes, do you think you can illustrate how the cells will look like? The rules are as follows:

* The board first starts out with either empty cells (‘.’) or with a cell already in place (‘0’).
* After each second that passes, any empty cell will become taken over by a cell.
* A living cell that has lived for three seconds will self-destruct and take the cells that are directly above, below, left, and right with it as well.

**Input:** The first line of input denotes **R**, **C**, and  **S**, the rows, columns, and number of seconds that will go by. The next **R** lines contain **C** space separated characters. The ‘.’ denote an empty space and the ‘0’ (zero) denotes a cell.

**Output:** How the grid will look like after **S** seconds.

**Example Input:**

6 7 3

. . . . . . .

. . . 0 . . .

. . . . 0 . .

. . . . . . .

0 0 . . . . .

0 0 . . . . .

**Example Output:**

0 0 0 . 0 0 0

0 0 . . . 0 0

0 0 0 . . . 0

. . 0 0 . 0 0

. . . 0 0 0 0

. . . 0 0 0 0

**Explanation:**

. . . . . . .

. . . 0 . . .

. . . . 0 . .

. . . . . . .

0 0 . . . . .

0 0 . . . . . (in the 1st second, the board will not have changed)

0 0 0 0 0 0 0

0 0 0 0 0 0 0

0 0 0 0 0 0 0

0 0 0 0 0 0 0

0 0 0 0 0 0 0

0 0 0 0 0 0 0 (After the 2nd second, All empty cells will be overtaken will living ones.)

0 0 0 . 0 0 0

0 0 . . . 0 0

0 0 0 . . . 0

. . 0 0 . 0 0

. . . 0 0 0 0

. . . 0 0 0 0 (After the 3rd second, The cells planted in the 1st second will have self-destructing, taking the adjacent cells with it.)