A - Automatic Map Generator

Time limit : 2sec / Memory limit : 256MB

Problem

As is known to all, Okinawa is comprised of various islands. Cat Snuke wants to draw a simple map to include some of these islands. However, since the size of the paper is limited, Snuke will not be able to draw the map in details.

Therefore, Cat Snuke divides the paper into grids, which have H horizontal rows and W vertical columns. For each block of the grids, it will be filled with either a '.' that represents the sea or a '#' that represents the land.

Each island consists of blocks of land. For two blocks that represent land, we say that they belong to the same island, only if they had coincident edges or vertexes, or they were connected by other blocks that have coincident edges or vertexes. Otherwise, we say these two blocks belong to different islands.

Suppose that there is only sea beyond Snuke's map. Also, please note that the blocks of land that is surrounded by sea that is surrounded by an island belong to another island (rather than the outer island).

Cat Snuke needs to follow the rules above to draw exactly K islands on the paper. Please decide whether Snuke is able to draw. If your answer was yes, please find a solution.

Input

Inputs will be given by standard input in following format

$$H \quad W \quad K$$

- At the first line, $H(1 \leqq H \leqq 100)$ 、 $W(1 \leqq W \leqq 100)$ 、 $K(1 \leqq K \leqq 10,000)$ will be given divided by spaces.

Output

Output 'IMPOSSIBLE' if it is impossible to draw exactly K islands. Otherwise, output H lines where the i_{th} line has W letters, and the j_{th} letter from the left side of the i_{th} line must be the letter that Cat Snuke draws on her paper.

If there are multiple possible solutions, it is allowed to output any of them.

Print a newline at the end of output.

Input Example 1

```
6 7 4
```

Output Example 1

```
#.#####
..#...#
#.#.#.#
#.#...#
#..####
.#..###
```

There are four islands. Although the land block at the 3rd row from the top and the 5th column from the left is surrounded by an outer island, they are separated because that there is sea between them and they share no edges nor vertices.

Input Example 2

```
2 4 3
```

Output Example 2

```
IMPOSSIBLE
```

The paper is too small to draw a map that satisfies the conditions.

Input Example 3

```
20 50 10
```

Output Example 3

```
..................................................
.............................................#......
............................................#......
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...........................................#......
..............................................#...
.........................................##..#....##..
.........................................##..###..
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.......##................#...............#.#.........
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