Problem E. Puzzle: Tapa

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Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	1024 megabytes

A tapa is an appetizer or snack in Spanish cuisine.

— Wikipedia

Grammy is a puzzle master. Today, she is playing a variant of "Tapa" puzzle. In this variant, there are $n \times m$ clues on an $(2n-1) \times (2m-1)$ rectangular grid. All the clues are located on cells (i, j) where i, j are both odd. Each clue is a number that is either equal to or one less than the number of cells around the clue. Specifically, the clues on the corners of the grid can be 2 or 3, the clues on the edges of the grid can be 4 or 5, and the clues on the center of the grid can be 7 or 8. The goal is to shade some cells such that:

- All clue cells are unshaded.

- Each clue cell denotes the number of **consecutive** shaded cells around it.
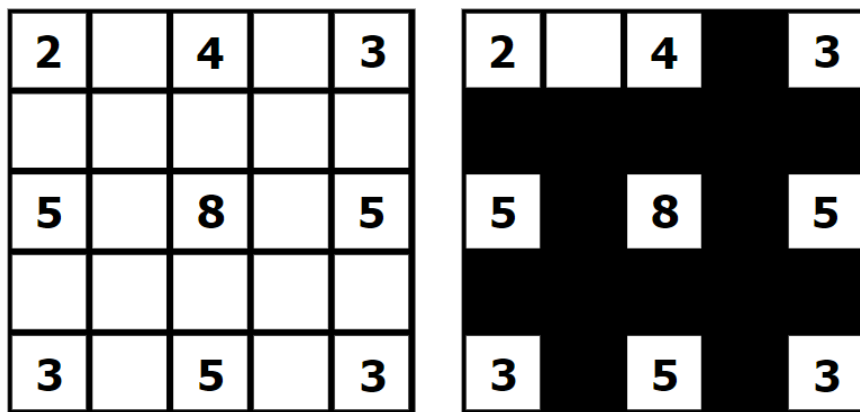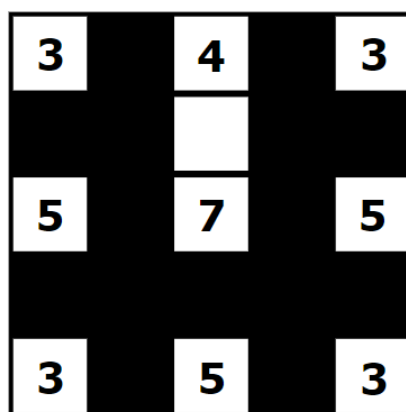
The top-left picture illustrates a possible 5×5 grid with only clues, the top-right picture shows a possible way to solve the puzzle, and the bottom picture shows a **wrong** solution to a puzzle since the shaded cells around 4 are not consecutive.

Grammy surely knows how to solve the puzzle, but she decided to give you a quiz. Please solve the puzzle.

Input

The first line contains two integers n, m ($2 \leq n, m \leq 50$), denoting the size of the grid.

Each of the next $2n - 1$ lines contains $2m - 1$ characters denoting the grid with given clues. A dot('.') denotes a cell without a clue, while a digit denotes a clue on the cell. It is guaranteed that every cell on the intersection of odd row and odd column has a clue, and all other cells do not contain any clues.

Output

If the solution does not exist, output "NO" on a single line.

Otherwise, output "YES" on the first line, then output $2n-1$ lines, each of which contains $2m-1$ characters, denoting the solution to the puzzle. The format is similar to the input grid, but you should mark the shaded cells with '#'. In other words, a dot('.') in your output denotes an unshaded cell without a clue, a hash('#') denotes a shaded cell, and a digit denotes a clue on the cell.

If there are multiple solutions, output any.

Examples

standard input	standard output
3 3 2.4.3 ..... 5.8.5 ..... 3.5.3	YES 2.4#3 ##### 5#8#5 ##### 3#5#3
3 3 3.4.3 ..... 5.7.5 ..... 3.5.3	NO
2 2 2.2 ... 2.2	YES 2.2 ### 2.2