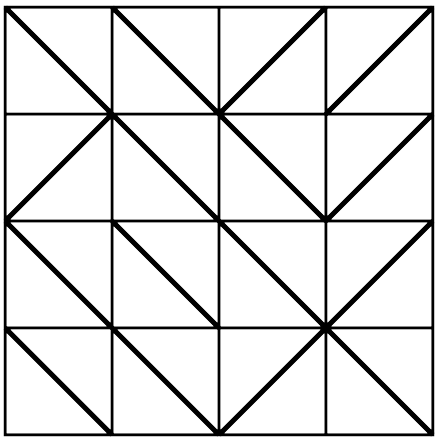
Grid Cutting

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

Grid artist Brue has a grid of size $N \times M$. Let's denote the cell in the r-th row from the top and the c-th column from the left as (r, c). Brue plans to cut the grid into multiple pieces.

To cut the grid, Brue first has to decide which direction to cut each of the NM cells. For each cell, the cut should be made through one of the two diagonals.

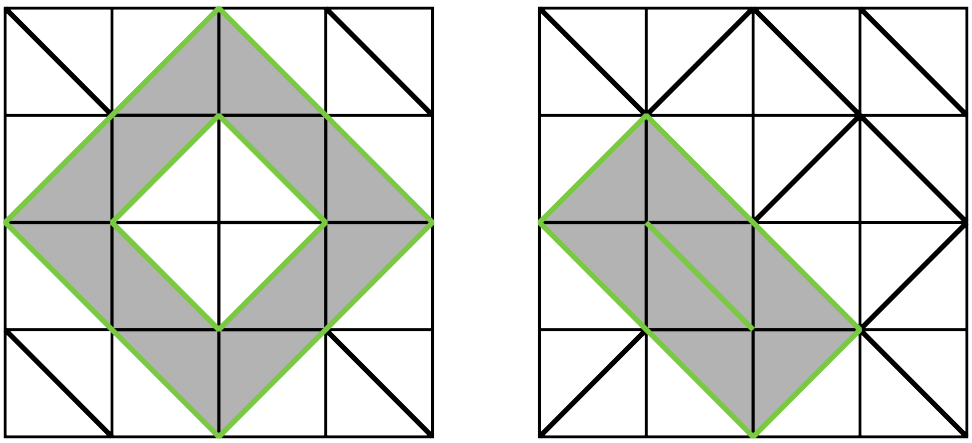
The figure below depicts an example of cutting a 4×4 grid.



In the above example, the grid is cut into 9 pieces.

A piece is considered **beautiful** if it satisfies the following conditions.

- The piece can be appropriately rotated so that the line segments forming its border are parallel either to the x-axis or the y-axis.
  - Based on how the pieces are cut, there may be holes or cut marks on the pieces. In this case, it must be possible to rotate the piece so the line segments forming those parts are also parallel to either the x-axis or the y-axis. In the figure below, the left is an example of a beautiful piece with a hole, and the right is an example of a beautiful piece with a cut mark. (The corresponding pieces are marked in green.)



While exploring how to cut the grid more beautifully, Brue got interested in the edges of the grid. Here, the term **edge** is defined as below.

- A segment of length 1 that lies between two vertically adjacent grid cells is called a **horizontal edge**.
- A segment of length 1 that lies between two horizontally adjacent grid cells is called a **vertical edge**.
- We refer to a horizontal or vertical edge collectively as an **edge**.

By definition, there are $(N-1)M$ horizontal edges and $N(M-1)$ vertical edges in a grid of size $N \times M$.

Brue has already decided on the direction to cut for some of the NM grid cells but not for the others. In addition, Brue wants K specific edges to be inside beautiful pieces. (The edges do not have to be included in the same piece.)

Determine if it is possible to cut the grid in a way that satisfies the above conditions, and if so, find one.

Input

The first line of input contains three space-separated integers — N, M, and K. ($2 \leq N \leq 50$; $2 \leq M \leq 50$; $0 \leq K \leq (N-1)M + N(M-1)$)

The r-th of the following N lines contains M characters C_{r1}, C_{r2}, $\cdots$, C_{rc}, denoting the cut direction of each cell. C_{rc} is one of `'/'`, `'\'`, or `'.'`.

- If C_{rc} is `'/'` or `'\'`, it denotes the cut direction of cell (r, c).
- If C_{rc} is `'.'`, it denotes that the cut direction of cell (r, c) has not yet been decided.

The i-th of the following K lines contains three space-separated integers d_i, a_i, and b_i, denoting the i-th edge to be included in a beautiful piece. The K edges are pairwise distinct. ($0 \leq d_i \leq 1$; $1 \leq a_i \leq N - (1 - d_i)$; $1 \leq b_i \leq M - d_i$)

- If the i-th edge is a horizontal edge, $d_i = 0$, and the cell above that edge is (a_i, b_i).
- If the i-th edge is a vertical edge, $d_i = 1$, and the cell to the left of that edge is (a_i, b_i).

Output

If it is possible to cut the grid so that the given K edges are all inside beautiful pieces, print `"YES"` in the first line.

In the following N lines, print how to cut the grid. Each line should contain M characters, and each character must be either `'/'` or `'\'`.

If it is impossible to cut the grid satisfying the conditions, print `"NO"` in the first line.

Examples

standard input	standard output
4 4 2 ..// .\./ .\.. \./\ 0 3 3 1 3 1	YES \\// /\\/ \\\/ \\/\
2 3 2 .\. ... 1 2 1 1 2 2	NO