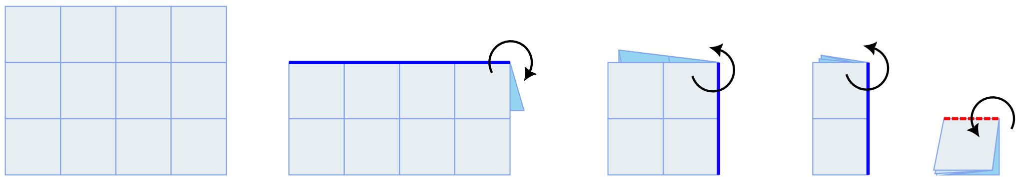
Problem F
Map and Fold

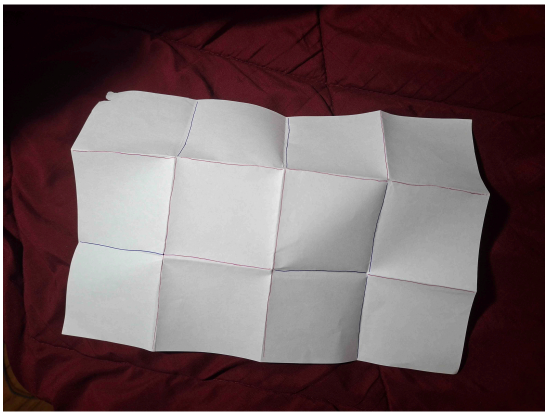
Victorino Mapa loves physical maps. His favorite part of a map is *folding* it up into a little square, and then seeing the crease patterns formed by the folds when he opens it up again. He loves it so much that he will create a cool new notation for folded maps.

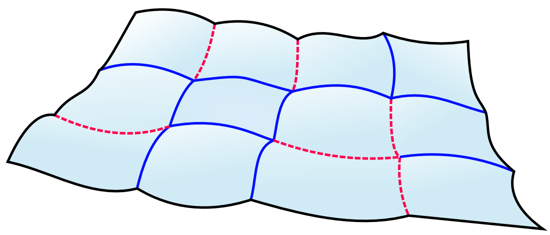
In some order, he performs some sequence of folds: some across a horizontal axis, and some across a vertical axis. Each horizontal fold is made an integer number of units away from the top of the paper, and the crease always spans the entire width of the paper (and similarly so for vertical folds). Victorino stops only when the paper has been folded into a unit square.

Here's an example of some sequence of such folds applied to a 3×4 map.



When Victorino opens this paper up again, he'll get a map that looks something like this:

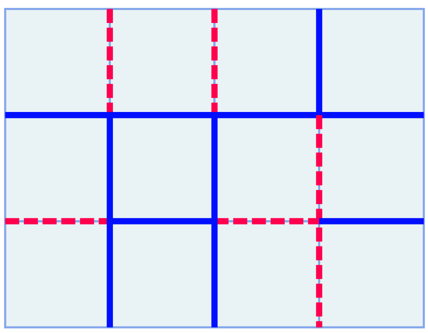




The crease lines create the shape of an $m \times n$ grid of unit squares! Victorino calls this process the *manifold method*, and the result of the manifold method is a *manifolded map*.

Let a *fold* refer to an edge (1 unit long) that is shared by two bordering cells. Each fold can be characterized as one of two types, depending on the *direction* of the crease. Suppose you are directly facing the surface of the map—folds that crease towards you are *mountain folds*, and folds that crease away from you are *valley folds*.

In the following diagram, we flatten the sheet of paper from the above example. Mountain folds have been marked with solid lines, while valley folds have been marked with dashed lines.



Victorino devises the following scheme for encoding a manifolded map into a grid of ASCII characters. Before he describes it to you, let's look at a concrete example—he encoded the manifolded map from earlier.

```
.V.V.M.
M+M+M+M
.M.M.V.
V+M+V+M
.M.M.V.
```

Formally, let s be a $(2r-1) \times (2c-1)$ grid, where $s_{i,j}$ is the character in the ith row from the top and jth column from the left.

- If i and j are both odd then $s_{i,j}$ is `.` to represent a unit square in the grid.
- If i and j are both even then $s_{i,j}$ is `+` to represent a corner where four squares meet.
- Otherwise, $s_{i,j}$ represents the fold that is bordered by the two unit squares that are adjacent to this character; it is `M` if this is a mountain fold, and `V` if this is a valley fold.

Victorino realized that the fun could go the other way around. Given an ASCII grid, the challenge is to make the right choices while performing the manifold method in order to replicate the pattern described by the grid—that is, if it's possible at all.

Given such a grid, please determine (simply `YES` or `NO`) whether or not a manifolded map can be replicated in real life that would produce that pattern when represented as a grid using Victorino's encoding scheme. Also, there will be T independent test cases per file.

Input Format

The first line of input contains a single integer T, the number of test cases. The descriptions of the T test cases follow.

The first line of each test case contains the two space-separated integers r and c.

Then, $2r-1$ lines follow, each containing a string of length $2c-1$.
This is the $(2r-1) \times (2c-1)$ grid whose pattern we wish to replicate using the manifold method.

Output Format

For each test case, output a single line containing either the string `YES` or `NO`

Constraints

Constraints
$1 \leq T \leq 80$
$1 \leq r, c \leq 50$
$2 \leq rc$
The input follows the format of Victorino's encoding scheme.

Sample I/O

Input	Output
2 3 4 .V.V.M. M+M+M+M .M.M.V. V+M+V+M .M.M.V. 2 2 .M. M+M .M.	YES NO