Tiles

Do you know Piano Tiles? It's a simple game that only needs tapping using finger. In this problem, your task is to count what is the minimum tap you need so that you get all the tiles?
To simplify the problem, you will get N lines with M characters each. In each line, there is '|', '/' or '\' representing the tiles, otherwise it's '.'. If in the i-th column is a tile, then the last position of your finger after the tiles is :
if '|', then (i)-th column
if '/', then (i-1)-th column
if '\', then (i+1)-th column
In this problem, there are sliders. A series of tiles are called slider if the next tile is in the last position of your finger.
In slider, you only need to tap at the beginning of the slider.

Format Input
The input begins with an integer T indicating the number of test cases. In each test case, the first line will be integers N and M indicating the number of rows and columns. The next N lines, there are M characters describing the board.

Format Output
For each test case, output the minimum tap you need so that you get all the tiles.

Constraints
1 <= T <= 10
1 <= N,M <= 100

Sample Input	Sample Output
3 6 6 .....| ...../ \\..... .|.... .\\.... ..|... 6 7 ......| ......| ......| ......| ......| ......| 7 7 .../... ..\\.... ..\\.... ...|... ./..... \\...... ....\\..	Case #1: 2 Case #2: 1 Case #3: 4

Explanation
In the first case, you only need to tap line 1 and 3. So the answer is 2.
In the third case, you need to tap line 1, 3, 5, and 7. So the answer is 4.