Sheba's Amoebas

After a successful Kickstarter campaign, Sheba Arriba has raised enough money for her mail-order biology supply company. "Sheba's Amoebas" can ship Petri dishes already populated with a colony of those tiny one-celled organisms. However, Sheba needs to be able to verify the number of amoebas her company sends out. For each dish she has a black-and-white image that has been pre-processed to show each amoeba as a simple closed loop of black pixels. (A loop is a minimal set of black pixels in which each pixel is adjacent to exactly two other pixels in the set; adjacent means sharing an edge or corner of a pixel.) All black pixels in the image belong to some loop.

Sheba would like you to write a program that counts the closed loops in a rectangular array of black and white pixels. No two closed loops in the image touch or overlap. NOTE: One particularly nasty species of cannibalistic amoeba is known to surround and engulf its neighbors; consequently there may be amoebas within amoebas. For instance, each of the figures below contains four amoebas.



Input

The first line contains two integers m and $n, 1 \le m, n \le 100$. This is followed by m lines, each containing n characters. A "#" denotes a black pixel, a "." denotes a white pixel.

Output

Print a single integer representing the number of loops in the input.

Sample Input

Sample Output

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