Counting Rooms

HackerRank

You are tasked with counting the number of rooms on a building's map. The map is **n** by **m** squares in size, with each square representing either an empty space or a wall. The connected empty space squares can be merged into a single room.

Input Format

- The first input line consists of two integers **n** and **m**, representing the length and width of the map.
- Following that, there are **n** lines of **m** characters describing the map. Each character is either "." (empty space) or "#" (wall).

Constraints

- $1 \leq \mathbf{n}, \mathbf{m} \leq 1000$

Output Format

- Print the number of rooms as an integer

Sample Input 0

```
5 8
########
#..#...#
####.#.#
#..#...#
########
```

Sample Output 0

```
3
```

Explanation 0

To count the number of rooms in the given map, we need to identify enclosed areas that are surrounded by walls ("#") and can be accessed through empty spaces (."). Each enclosed area counts as one room.

Let's analyze the map:

```
########
#..#...#
####.#.#
#..#...#
########
```

1. The first room is in the top left corner. It is surrounded by walls on all sides:

2. The second room is in the right side. It is also surrounded by walls on all sides. And also has a wall in the middle:

3. The third room is at the bottom:

So, there are a total of 3 rooms in the map.