

Find the Number of Rooms

1 sec

512000KB

100

Difficulty

Time Limit

Memory

Score

80/80 XP

30/30

Description

You are given a map of a building, and your task is to count the number of its rooms. The size of the map is $n \times m$ squares, and each square is either floor or wall. You can walk left, right, up, and down through the floor squares.

Input Format

The first input line has two integers n and m : the height and width of the map.
Then there are n lines of m characters describing the map. Each character is either '.' (floor) or '#' (wall).

Output Format

Print one integer: the number of rooms.

Constraints

$1 \leq n, m \leq 1000$

Sample Input 1

Copy

5 8

#..#..
####..
#..#..
#####

Sample Output 1

Copy

```
7 vector<vector<int>> vis;
8
9 int n, m;
10 int dx[] = {1, -1, 0, 0};
11 int dy[] = {0, 0, 1, -1};
12 bool check(int x, int y)
13 {
14     if (x < n && y < m && x >= 0 && y >= 0 && building[x][y] != '#')
15     {
16         return 1;
17     }
18     return false;
19 }
20 vector<pp> neighbour(pp p)
21 {
22     vector<pp> ans;
23     for (int i = 0; i < 4; i++)
24     {
25         int x = p.first + dx[i];
26         int y = p.second + dy[i];
27         if (check(x, y))
28         {
29             ans.push_back(make_pair(x, y));
30         }
31     }
32     return ans;
33 }
34 void bfs(pp node)
35 {
36     queue<pp> q;
37     q.push(node);
38     vis[node.first][node.second] = 1;
39
40     while (!q.empty())
41     {
42         pp ele = q.front();
```