29 Blobs

22 points

Introduction

Given a binary (black and white) image (2D matrix), calculate how many blobs it contains. A blob is a set of connected black pixels.

Two black pixels are connected if there is a path of black pixels between them. Two adjacent pixels are connected if both are black. The adjacent pixels A of P are represented as follows:

```
 A
APA
 A
```

Input

A line with 2 positive numbers, which are the columns and the rows of the image, followed by as many lines as image rows, where the white pixels are depicted by '.' and the black ones by '#'.

Output

The number of blobs in the image.

Example 1

Input

```
7 5
.......
.##....
.##.##.
.....#.
.......
```

Output

```
2
```

Example 2

Input

```
3 4
...
.#.
.#.
...
```

Output

```
1
```