

forestsize

time limit per test: 2 seconds
memory limit per test: 1 gigabyte
input: standard input
output: standard output

points: 1 · problem code: forestsize · author: jszqlw

Problem Statement

You are given an undirected forest graph (see definition below) with n nodes and m edges. Determine the number of trees in the forest graph.

NOTE: A forest graph is a graph containing multiple disconnected trees. Also think twice before starting to code.

Input Format

Your first line will contain two integers n and m . Your next m lines will contain two integers each, u and v denoting that u has an undirected edge to v . You are guaranteed these edges will form a forest graph.

Output Format

Output a single integer, the number of trees of disconnected trees in the forest graph.

Constraints

- $1 \leq n \leq 10^5$
- $0 \leq m < n - 1$
- $0 \leq u, v < n$
- You are guaranteed there are no repeated edges.
- You are guaranteed the edges will form a forest graph.

Sample Cases

Input 1

```
5 3
0 1
1 2
3 4
```

Output 1

```
2
```

Notice there are two trees in this forest, one is formed by the nodes $\{0, 1, 2\}$ and the other by the nodes $\{3, 4\}$.

Input 2

```
10 6
7 0
1 4
0 1
1 2
1 3
7 8
```

Output 2

```
4
```

Here we can notice that a lot of the trees are single nodes, in particular nodes 5, 6 and 9 have no edges and are their own trees, all other nodes form a single tree.