Connected components

1 second, 128 MB

You are given graph ***G*** = (***V***,***E***) with ***n*** nodes and ***m*** edges. Find the number of connected components.

Input

The first line of the input contains two integers ***n*** and ***m***. (1<= ***n*** <= 100,000; 1<= ***m*** <= 200,000) The nodes in the graphs are labeled from 1 to ***n***.

The next ***m*** lines are list of edges. Each line contains two integers ***u*** and ***v*** (1 <= ***u*** <= ***n***; 1<= ***v*** <= ***n***; ***u*** is not equal to ***v***) meaning that there is an edge joining node ***u*** and ***v***. There are at most one edge between any pairs of nodes.

Output

Your program should output the number of connected component in ***G***.

Example 1

Input	Output
5 4 1 2 2 3 3 1 4 5	2

Example 2

Input	Output
6 4 1 2 2 3 3 1 4 5	3