An undirected, unweighted graph is given. It is necessary to calculate the number of its connected components.

The input program is given two numbers N and M – the number of vertices and edges of the graph, respectively ($0 \le N \le 1000$, $0 \le M \le 100000$). The next M lines contain two numbers i and j ($1 \le i, j \le N$), which means that the vertices i and j are connected by an edge.

Print the number of connected components.

Sample input 1:
6 4
3 1
1 2
5 4
2 3

Sample output 1:
3

Sample input 2:
6 4
4 2
1 4
6 4
3 6

Sample output 2:
2