Problem C
Isolated Verticies

Time limit: 1 second
Memory limit: 2048 megabytes

Problem Description

Given a directed graph with n vertices and m directed edges, where the vertices are numbered from 1 to n.

A cycle in a directed graph is a sequence of vertices $v_1, v_2, \ldots, v_k, v_1$, where $k \geq 1$, only the first and last vertices are equal and each pair of adjacent vertices share an edge. Define a vertex to be *isolated* if it is not in any cycle. Find the number of isolated verticies in the graph.

Input Format

The first line of the input contains two integers n and m. Each of the following m lines contains two integers u_i and v_i, where the i-th line denotes that there is a directed edge from vertex u_i to v_i in the graph.

Output Format

Output the number of isolated verticies in one line.

Technical Specification

- $1 \leq n \leq 2 \times 10^5$
- $0 \leq m \leq \min(n(n-1), 2 \times 10^5)$
- $1 \leq u_i, v_i \leq n$ for $i = 1, 2, \ldots, m$
- It is guaranteed that the input graph does not contain loops and multiple edges.

Scoring

1. (30 points) $1 \leq n \leq 100$
2. (70 points) No additional constraints.

Sample Input 1

```
5 7
1 5
4 5
5 2
5 3
2 3
2 4
1 3
```

Sample Output 1

```
2
```

Sample Input 2

```
9 12
8 6
2 1
9 1
1 3
3 5
3 4
5 6
6 7
7 8
4 9
3 2
7 5
```

Sample Output 2

```
0
```

Sample Input 3

```
10 11
1 2
1 3
2 4
3 4
1 5
4 5
5 6
6 7
7 4
8 9
7 10
```

Sample Output 3

```
6
```

Sample Input 4

```
200000 0
```

Sample Output 4

```
200000
```