Cow Contest

Language: Default

Time Limit: 1000MS **Memory Limit:** 65536K
Total Submissions: 18741 **Accepted:** 10378

Description

N ($1 \le N \le 100$) cows, conveniently numbered 1..N, are participating in a programming contest. As we all know, some cows code better than others. Each cow has a certain constant skill rating that is unique among the competitors.

The contest is conducted in several head-to-head rounds, each between two cows. If cow A has a greater skill level than cow B ($1 \le A \le N$; $1 \le B \le N$; $A \ne B$), then cow A will always beat cow B.

Farmer John is trying to rank the cows by skill level. Given a list the results of M ($1 \le M \le 4{,}500$) two-cow rounds, determine the number of cows whose ranks can be precisely determined from the results. It is guaranteed that the results of the rounds will not be contradictory.

Input

* Line 1: Two space-separated integers: N and M
* Lines 2..M+1: Each line contains two space-separated integers that describe the competitors and results (the first integer, A, is the winner) of a single round of competition: A and B

Output

* Line 1: A single integer representing the number of cows whose ranks can be determined

Sample Input

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

Sample Output

2

Source

USACO 2008 January Silver

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