Task D. COMPLEX ANALYSIS

Stancho is teaching Complex Analysis 3 in FMI. One day Pancho told him, that each student is different. Stancho could not believe this fact, (he always thought that all the students are the same dumb future programmers) so he wanted to check it. He selected P different problems, and gave them to his S students. Based on the solved problems, Stancho wants to know, how many "different" students he has. Students are numbered 1 to S and problems from 1 to P.

Standard input consists of several test cases. Each of them consist of a line containing S, P and C followed by C lines, containing a pair of integers i and j, indicating that student i has solved problem j.

For each test case write on the standard output a line with how many different students are represented in the input. Two students are the same (dumb future programmers) only if they solved exactly the same set of problems. You may assume that $P < 100$ and $S < 100$.

Sample Input
```
3 4 6
1 2
3 3
1 3
2 2
3 2
2 4
```

Sample Output
```
2
```