25 Secret door
15 points

Introduction
As every year, our grandpa Santa Claus is in his journey to deliver presents to all good girls and boys around the world in his sleigh led by magical reindeer. But this time, and out of his imagination, the magical sleigh crashed and Santa landed in a maze of rooms created by the Grinch. By the time Santa recovered from this problem, there are only a few minutes until midnight and Santa is seeking help from a good girl or boy to help him out.

The maze is as follows: every room is connected, by a secret hall, to another room and there is only one room with an exit to the exterior, marked with a 0 (zero).

When you are in one room, you take the secret hall to another room. From there you walk to other room, and so on until you find the exit. The path is said to be unidirectional, i.e. one room is only connected to another room. For instance, room 1 is connected to room 3, but room 3 is not connected to room 1. In the other hand, there are rooms that are connected to themselves, so they don't have an exit.

For instance:
0 → 0 : has an exit by definition
1 → 3 : has an exit via 3
2 → 1 : has an exit via 1, then 3
3 → 0 : has an exit directly connected to 0
4 → 2 : has an exit via 2, then 1, then 3
5 → 5 : do not has an exit

Santa would like to know how many rooms, that are connected to the exit, are so he can continue his journey. In the previous example, we would give Santa the answer of 5 (5 rooms with an exit). All of them but room 5.

Would you help Santa to find the way out so he can deliver all the presents?

Input
<n> positive integer number greater than 0 indicating how many rooms there are.
<room ID> <room ID connection> for every room we give the room id and its connection.The room ID will be between 0 and n-1. The given sequence can be in any order.

Output
Print out the positive integer indicating how many rooms have an exit.

Example

Input
```
6
0 0
1 3
2 1
3 0
4 2
5 5
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Output
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5
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