

Problem D

GDSC – PTIT

Time limit: 2 seconds

Google Developer Students Club (GDSC) – formerly known as Google Developer Groups on Campus, is a project by Google aimed at supporting students passionate about information technology in establishing and organizing activities for developer and student communities at universities.

GDSC PTIT will participate in the global meetup with other GDSC chapters to learn new skills and expand relationships with them. With the motto “Together, we learn, share, connect, and grow”, GDSC PTIT is excited and fully prepared to network and engage in conversations with these chapters.

However, the meetup will naturally have a limited duration. Therefore, it becomes crucial to connect with as many chapters as possible. To save time, GDSC PTIT will connect with each chapter exactly once and then immediately move on to the next chapter. This process will continue consecutively until the meetup ends.

Please find out the maximum number of chapters that GDSC PTIT can connect with during the meetup.



An interview session in GDGOC – PTIT

Input

The first line contains two positive integers N and M , where N is the total number of GDSC chapters worldwide, and M is the number of options for transitioning from one chapter to another.

The next M lines, each containing two positive integers u_i and v_i , define that after meeting chapter u_i , GDSC PTIT will immediately connect with chapter v_i .

Output

Print a single positive integer representing the number of GDSC chapters that GDSC PTIT can connect with during the meetup.

Constraints

$$2 \leq M < N \leq 10^6.$$

$$1 \leq U_i, V_i \leq N, \text{ (for all } i\text{)}.$$

Sample Explanation

In sample test, we have two options for meeting $2 \rightarrow 3 \rightarrow 4$ and $1 \rightarrow 5 \rightarrow 6 \rightarrow 8$. Therefore, GDSC PTIT can connect with 4 chapters during the meetup.

Sample Input 1

| | |
|---|---|
| 9 | 5 |
| 2 | 3 |
| 3 | 4 |
| 1 | 5 |
| 5 | 6 |
| 6 | 8 |

Sample Output 1

| |
|---|
| 4 |
|---|