Quantum Synchronization

NexGen Industries has developed a revolutionary distributed database built on quantum principles. Their system faces a critical synchronization challenge: when nodes become quantum-entangled through communication channels, they must be updated as unified clusters.

The key synchronization rule is this: Any nodes that form a connected network through direct or indirect communication channels must be updated simultaneously in a single operation. This means if Node A connects to Node B, and Node B connects to Node C, then all three nodes (A, B, and C) must receive updates in the exact same quantum operation—even though A and C aren't directly connected. This constraint arises from the quantum coherence properties of the specialized hardware. Breaking this rule by attempting to update only part of a connected cluster would cause wave function collapse and irreversible data corruption across the entire system.

The system uses parallel update streams to manage this requirement. Each stream can handle multiple nodes simultaneously, but the capacity of each stream is limited. The Chief Technology Officer needs to determine the minimum stream capacity required to successfully update the entire network without causing data corruption.

Input

The input consists of:

- One line with two integers n and m ($1 \le n \le 2 \cdot 10^5$, $0 \le m \le 2 \cdot 10^5$), the number of nodes and the total number of direct communication channels between them.
- m lines, each with two integers i and j ($1 \le i < j \le n$), denoting a direct communication channel between nodes i and j.

The nodes are numbered from 1 to n. It is guaranteed that no communication channel is listed multiple times.

Output

Output the minimum stream capacity needed to update all nodes in the network.

Sample Input 1

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

Sample Output 1

```
3
```

Sample Input 2

```
4 0
```

Sample Output 2

```
1
```

Sample Input 3

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

Sample Output 3

```
5
```