≡   Hello, **2024101067**.

Unicyclic components

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✔ **Points:** 100 (partial)
🕐 **Time limit:** 1.0s
🗏 **Memory limit:** 256M

⌄ **Allowed languages**
C, C++

You are given an undirected graph with n vertices numbered 1 to n and m edges numbered 1 to m. Edge i connects vertex u_i and vertex v_i.

Determine whether every connected component in this graph satisfies the following condition:

- The connected component has the same number of vertices and edges

Input Format

The first line of input contains two integers n and m denoting the number of vertices and edges respectively.

The following m lines have two integers u and v each, denoting an edge between these nodes.

Constraints

$1 \le n \le 200,000$

$0 \le m \le 200,000$

$1 \le u_i \le v_i \le n$

NOTE: The input graph need **not** be a *simple graph*. Therefore, there can be multi-edges (more than one edge between two nodes) and self-loops (edges from a node to itself).

Output Format

If every connected component satisfies the condition, print `Yes`. Otherwise, print `No`. (Case sensitive)
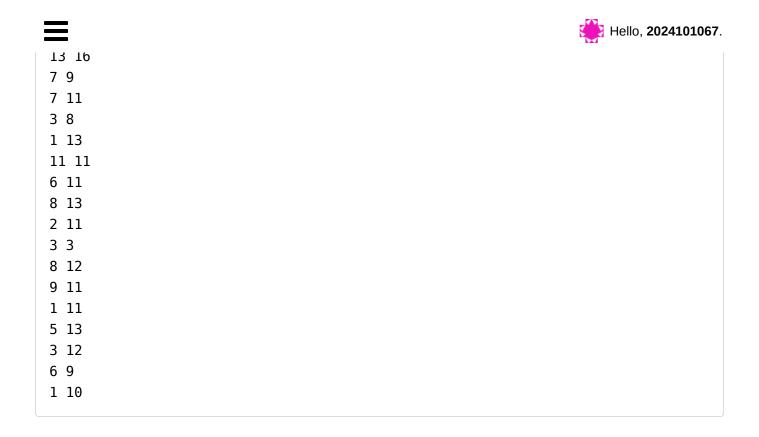
Sample Test Case 0:

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```
3 3
2 3
1 1
2 3
```
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Output:

```
Yes
```
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Explanation:

The graph has a connected component formed from just vertex 1, and another formed from vertices 2 and 3.

The former has one edge (edge number 2), and the latter has two edges (edge numbers 1 and 3), satisfying the condition.

Sample Test Case 1:

Input:

```
5 5
1 2
2 3
3 4
3 5
1 5
```
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Output:

```
Yes
```
Copy

Sample Test Case 2:

Input:

```
13  16
7 9
7 11
3 8
1 13
11  11
6 11
8 13
2 11
3 3
8 12
9 11
1 11
5 13
3 12
6 9
1 10
```

Output:

```
No
```

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❓ Clarifications

Request clarification

No clarifications have been made at this time.