

Question 1

You are given an undirected graph that has n vertices and m edges. You should check if the given graph is a simple graph.

Input

The first line contains two integers n, m ($0 < n, m \leq 10^5$).

Each of the next m lines contains two integers a, b representing an edge that connects vertex a and vertex b ($0 \leq a, b < n$).

Output

Print "YES" if the given graph is a simple graph, otherwise print "NO". The output is case-sensitive.

Sample

https://drive.google.com/file/d/1N1-NJnSAq7MrNJ9Oy3_f5en2PyOVNKd1/view?usp=sharing

| Input | Output | Input | Output |
|-------|--------|-------|--------|
| 5 4 | NO | 5 4 | YES |
| 0 0 | | 0 1 | |
| 0 1 | | 1 2 | |
| 1 2 | | 2 3 | |
| 2 1 | | 0 3 | |