Problem B. Is it a tree

Time limit	500 ms
Mem limit	1572864 kB
Code length Limit	50000 B
OS	Linux

You are given an unweighted, undirected graph. Write a program to check if it's a tree topology.

Input

The first line of the input file contains two integers N and M --- number of nodes and number of edges in the graph ($0 < N <= 10000$, $0 <= M <= 20000$). Next M lines contain M edges of that graph --- Each line contains a pair (u, v) means there is an edge between node u and node v ($1 <= u,v <= N$).

Output

Print *YES* if the given graph is a tree, otherwise print *NO*.

Example

Input:

```
3 2
1 2
2 3
```

Output:

```
YES
```