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Harry and Magical Computer

Time Limit: 2000/1000 MS (Java/Others) Memory Limit: 32768/32768 K (Java/Others)
Total Submission(s): 3210 Accepted Submission(s): 1245

Problem Description

In reward of being yearly outstanding magic student, Harry gets a magical computer. When the computer begins to deal with a process, it will work until the ending of the processes. One day the computer got n processes to deal with. We number the processes from 1 to n . However there are some dependencies between some processes. When there exists a dependencies (a, b) , it means process b must be finished before process a . By knowing all the m dependencies, Harry wants to know if the computer can finish all the n processes.

Input

There are several test cases, you should process to the end of file.
For each test case, there are two numbers n m on the first line, indicates the number processes and the number of dependencies. $1 \leq n \leq 100, 1 \leq m \leq 10000$
The next following m lines, each line contains two numbers a b , indicates a dependencies (a, b) . $1 \leq a, b \leq n$

Output

Output one line for each test case.
If the computer can finish all the process print "YES" (Without quotes).
Else print "NO" (Without quotes).

Sample Input

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

Sample Output

```
YES
NO
```

Source

BestCoder Round #25

Recommend

heyang

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