ADAlab Online Judge

🏠 Home　　⚏ Problems　　🏆 Contests　　〽 Status　　📊 Rank b101109107 ▼

ℹ About ∨

|	
ID	island2
Time Limit	2500MS
Memory Limit	512MB
IO Mode	Standard IO
Created By	ta_redleaf
Level	Hidden
Score	100
Tags	Show

> statement is mainly the same, but the things to output are different.

A traverler found an island group. The island group is made up of one or more small islands, and each small island contains one or more cities. Cities are numbered with $1, 2, \cdots, n$. Cities in the same small island may be connected with bidirectional roads, but cities in different small islands are not connected with any road. Also within the same small island, from any city, all cities can be reached with some path (i.e. an alternating sequence of cities and roads).

Each small island has a capital city, which is the city with the smallest number on the small island. Each small island is named after the capital city. That is, if the capital city of a small island is city x, we call call the small island "island x".

Below is an example of island group: There are six small islands marked in green - island $1, 2, 3, 5, 9, 13$. Consider island 13. City 13 can reach city 14 with a path (city $13 \rightarrow$ a road $\rightarrow$ city 14). City 13 can reach city 15 with two paths. City 13 can also reach itself with an empty path (a path without using any road).
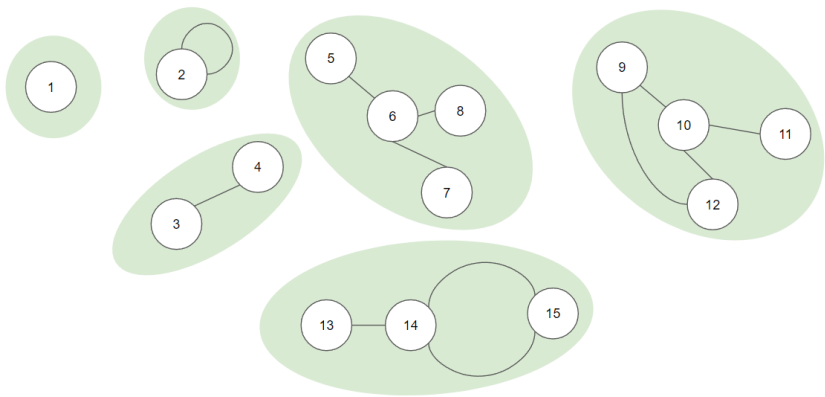
If a small island has two cities u and v (u may be equal to v) such that u can reach v with different paths, the small island is said to be *road wasting*. Given the cities and the roads in the island group, please determine whether the small islands are *road wasting* or not.
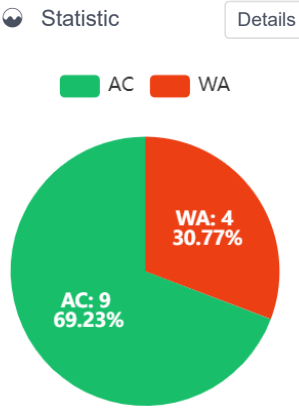
Note that:

- There may be more than one road connecting the same pair of cities.
- There may be roads starting and ending with the same city.
- There may be only one city on an small island.

Input

The first line contains integer n and m, being the number of cities and the number of roads. The following m lines describes the bidirectional roads. The i-th line contains two integers u and v, denoting that the i-th path connects city u and city v.

Statistic

🟩 AC　🟥 WA

WA: 4
30.77%

AC: 9
69.23%

Details

ADAlab Online Judge   🏠 Home   ▦ Problems   🏆 Contests   〽 Status   ▪ Rank b101109107 ▼

ⓘ About ∨

Output

Please output the small islands in increasing order. For each small island x, if it is road wasting, please print "x YES"; otherwise print "x NO".

Sample Input 1 📋

```
15 12
2 2
3 4
5 6
6 8
7 6
9 10
10 12
12 9
10 11
14 15
15 14
13 14
```

Sample Output 1

```
1 NO
2 YES
3 NO
5 NO
9 YES
13 YES
```

Hint

The island group in the sample IO is shown in the figure in the description.

There are six small islands - island $1, 2, 3, 5, 9, 13$. Among them, island $2, 9, 13$ are *road wasting*.

Details Restrictions

For test ID 1 (5% of total points):

- identical to sample IO

For test ID 2, 3 (10% of total points):

- the graph is guaranteed to be simple graph. i.e. no multiple edge, no self-loop

For the remaining tests (85% of total points):

- No additional restrictions

Language: C++   ▾   ↻   Theme: Solarized Light   ▾

☁

```
1
```

∧

ADAlab Online Judge

🏠 Home   ⊞ **Problems**   🏆 Contests   〰️ Status   📊 Rank b101109107 ▾

ℹ️ About ⌄

🐞 Submit for Sample Test   ✏️ Submit

Sample Test Input

```
15 12
2 2
3 4
5 6
6 8
7 6
9 10
10 12
12 9
10 11
14 15
15 14
13 14
```

Sample Test Output