

k-edge Connected

In graph theory, a graph is k -edge-connected if it remains connected whenever fewer than k edges are removed. Given an undirected graph find if it is 2-edge-connected or not.

Input:

First Line of the input will contain T representing the number of test cases.

First line of each test case will contain two space separated integers V and E representing **Number of Vertices** and **Number of Edges** respectively.

Next E lines will contain space separate integers representing vertices which possess an edge in between them.

Vertices will be labeled starting from 1. For example if $V=5$, the set of vertices is $\{1,2,3,4,5\}$

Output:

Output a single string "YES" or "NO" for each test case.

Constraints:

$$1 \leq T \leq 100$$

$$2 \leq V \leq 1000$$

$$0 \leq E \leq ((V*(V-1))/2)$$

Sample Input

```
2
9 8
1 2
2 3
3 4
4 5
5 6
6 7
7 8
8 9
4 6
1 2
1 3
1 4
2 3
3 4
2 4
```

Sample Output

```
NO
YES
```

Explanation

On interpreting the input and constructing the graph we get:

#1:

[1]----[2]----[3]----[4]----[5]----[6]----[7]----[8]----[9]

#2:

[1]----[2]

| \ / |

| / \ |

[3]----[4]