

Submissions

What are Birds?

5pt	Not attempted 115/168 users correct (68%)
12pt	Not attempted 78/114 users correct (68%)

Apocalypse Soon

8pt	Not attempted 17/41 users correct (41%)
14pt	Not attempted 7/13 users correct (54%)

Millionaire

13pt	Not attempted 29/52 users correct (56%)
16pt	Not attempted 15/28 users correct (54%)

Modern Art Plagiarism

7pt	Not attempted 137/147 users correct (93%)
25pt	Not attempted 17/32 users correct (53%)

Top Scores

ACRush	100
Ahyangyi	100
Amber	78
xhl.kogitsune	78
LayCurse	75
xreborner	71
stone	62
TripleM	62
wata	61
tckwok	53

Problem D. Modern Art Plagiarism

This contest is open for practice. You can try every problem as many times as you like, though we won't keep track of which problems you solve. Read the Quick-Start Guide to get started.

Small input
7 points

Solve D-small

Large input
25 points

Solve D-large

Problem

You have pictures of two sculptures. The sculptures consist of several solid metal spheres, and some rubber pipes connecting pairs of spheres. The pipes in each sculpture are connected in such a way that for any pair of spheres, there is exactly one path following a series of pipes (without repeating any) between those two spheres. All the spheres have the same radius, and all the pipes have the same length.

You suspect that the smaller of the two sculptures was actually created by simply removing some spheres and pipes from the larger one. You want to write a program to test if this is possible.

The input will contain several test cases. One sculpture is described by numbering the spheres consecutively from 1, and listing the pairs of spheres which are connected by pipes. The numbering is chosen independently for each sculpture.

Input

- One line containing an integer **C**, the number of test cases in the input file.

For each test case, there will be:

- One line containing the integer **N**, the number of spheres in the large sculpture.
- N**−1 lines, each containing a pair of space-separated integers, indicating that the two spheres with those numbers in the large sculpture are connected by a pipe.
- One line containing the integer **M**, the number of spheres in the small sculpture.
- M**−1 lines, each containing a pair of space-separated integers, indicating that the two spheres with those numbers in the small sculpture are connected by a pipe.

Output

- C** lines, one for each test case in the order they occur in the input file, containing "Case #**X**: YES" if the small sculpture in case **X** could have been created from the large sculpture in case **X**, or "Case #**X**: NO" if it could not. (**X** is the number of the test case, between 1 and **C**.)

Limits

Small dataset

1 ≤ C ≤ 100
2 ≤ N ≤ 8
1 ≤ M < N

Large dataset

1 ≤ C ≤ 50
2 ≤ N ≤ 100
1 ≤ M < N

Sample

Input	Output
2	Case #1: NO
5	Case #2: YES
1 2	
2 3	
3 4	
4 5	
4	
1 2	
1 3	
1 4	
5	

```
1 2
1 3
1 4
4 5
4
1 2
2 3
3 4
```

In the first case, the large sculpture has five spheres connected in a line, and the small sculpture has one sphere that has three other spheres connected to it. There's no way the smaller sculpture could have been made by removing things from the larger one.

In the second case, the small sculpture is four spheres connected in a line. These can match the larger sculpture's spheres in the order 2-1-4-5.

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