Problem E : Internet

inputfile: input.E
outputfile: output.E

Description

As most of you know, the Internet is a global network connecting thousands and thousands computers world-wide. It is also well known that the 'net' is a packet-switched network. This means that it consists of computers with unidirectional point-to-point links between them. If a host receives a communication packet that is not addressed to it, it will forward it along one of its outgoing links. This allows communication between computers that are not directly connected to each other.

Problem

Originally, one of the most important goals of the 'net' was to provide communications capability even after parts of the network were destroyed by e.g. nuclear attacks. In order to verify whether this is really true, we want you to write a program that checks whether communication between all computers on the network is still possible after something bad has happened.

Input

The input starts with a line consisting of one number describing the number of scenarios to be analysed.
Each scenario starts with a line consisting of one number describing the number of communication links in this scenario, followed by a line for each communication link. These lines consist of two hostnames, separated by a single space, indicating that the first host can transmit packets to the second host. A hostname consists of at least 1 and not more than 8 lower case letters. A communication link is never from one computer to itself. There are at most 100 computers in the network.

Output

The output should contain one line for each scenario, consisting of the single word `yes`, if communication between all computers is possible, and `no` if this is not possible.

Example

Sample input

```
2
2
mit tudelft
tudelft mit
3
pi wxs
wxs pi
xsall wxs
```

Correct output for the sample input

```
yes
no
```