Scooby Doo, Where Are You?

Program Name: `Scooby.java` **Input File:** `scooby.dat`

While investigating a haunted mansion, Shaggy and Scooby discover several secret passages connecting one room to another. As they explore the passages, they quickly write down the pairs of rooms that are connected. Using this list, they want to determine if it is possible to travel from a given room to another using only those passages. Since Velma is not around, they decide that a computer program is necessary for them to solve this problem. They want you to write this program.

Your task is to write a program that reads in a list of secret passages and determines if it is possible to travel from one room to another?

Input

The first line of the input is an integer *n* that represents the number of data collections that follow where each data collection is on two lines. The first line of each data collection consists of a list of secret passages with each passage separated by one space. Each passage is represented as two letters AB indicating that a passage exists between rooms A and B. The second line consists of two letters XY representing the starting room, X, and ending room, Y, of the route to test.

Output

Your program should print *n* lines of output (one for each data collection). Each line of output should be either yes or no indicating if it is possible to go from room X to room Y in the corresponding input.

The output is to be formatted exactly like that for the sample output given below.

Assumptions

Each room is represented by a single uppercase letter.
The number of secret passages will be between 1 and 25, inclusive.
Each input passage is bi-directional.

Sample Input

```
3
EF GH IJ FH
EG
AB CD EA FD BG FC
AF
RS TU VW TV WS
JK
```

Sample Output

```
yes
no
no
```