# Do You Know the Way to San Jose?

"You've got to be very careful if you don't know where you are going because you might not get there."

• Yogi Berra

Having lost your GPS navigation system, you must manage to navigate through Silicon Valley manually. The problem is that you have only a limited knowledge of the geography. Your task will be to determine if you know how to get from your current location to San lose.

#### **Input Format**

The input consists of a positive integer n,  $0 \le n \le 1000$ , representing all of the cities between which you can navigate. Note that if you can get from city A to city B, you can also get from city B to city A.

Following this line, will be *n* lines containing the pairs of cities. Note that each city name will not have any spaces in it - rather any spaces will be replaced with underscore characters.

Following the list of city pairs, will be a non-negative integer t,  $t \le 1000$ , indicating a number of test cases.

Each test case will have a starting city name, listed on a line by itself. The city names in the test cases will be formatted in the same way as those in the city pairs.

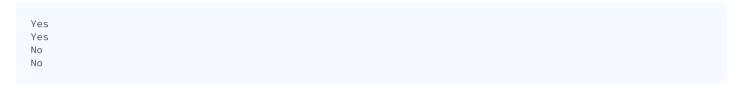
## **Output Format**

For each test case, you are to output either Yes or No on a line by itself. Output Yes if you know how to navigate from the starting city to San\_Jose. Output No otherwise.

## Sample Input

```
6
San_Francisco San_Mateo
Redwood_City San_Mateo
Palo_Alto Mountain_View
Mountain_View Cupertino
Mountain_View Menlo_Park
Cupertino San_Jose
4
Menlo_Park
San_Jose
San_Mateo
Sunnyvale
```

#### Sample Output



# **Explanation**

In the first text case, from Menlo\_Park you can get to Mountain\_View and then Cupertino and then San\_Jose.

In the second test case, you are alread in San\_Jose.

In the third and fourth test cases, you do not know how to get to San\_Jose from the starting city.