Problem A
Common Interests

Everybody has various topics that they are interested in. For example, I may be interested in math, while you may be interested in golf.

Given the interests of various people, your goal is to answer queries of the form: Does person X and Y share a common interest?

Input

The first line of the input contains an integer N ($1 \leq N \leq 100\,000$), the number of interest pairs.

Each of the next N lines contain the name of a person and one of their interests, separated by a space. Names and interests consist of 1 to 5 lowercase letters. No (person, interest) pair will be repeated. A given string will never be both a person and an interest.

The next line of the input is an integer Q ($1 \leq Q \leq 100\,000$), the number of queries.

Each of the next Q lines contain the name of two different persons separated by a space. It is guaranteed that a person here will have at least one interest given before.

Output

For each query, output a line with "Yes" if the two persons share at least one common interest, and "No" otherwise.

Sample Input	Sample Output
6 bob golf bob pizza suzy magic andy bugs suzy golf andy math 3 bob suzy bob andy suzy andy	Yes No No