11 Training R3-AD
5 points

Introduction

In a galaxy far, far away, you are training the last model droid R3-AD to read regular English texts. R3-AD already knows a subset of the alphabet and it is not able to distinguish uppercase and lowercase. To consolidate its learning the droid must read a book. But as you can imagine R3-AD can read a word only if it is formed exclusively by letters it already knows. To evaluate how it is improving its reading capability you are curious about which words can be read and which cannot. Can you quickly code a program that reports which words can be read by R3-AD?

Input

The first line contains the letters R3-AD can read. Every letter will appear only once.

The second line contains a positive number referring to the number of words in the book.

Then there will be a line per each word of the book.

Output

For each of the words, print a single line stating Yes in case R3-AD can read it, and No otherwise.

Example

Input

```
abcdefimnop
5
mine
done
far
End
May
```

Output

```
Yes
Yes
No
Yes
No
```