Virus Outbreak (100 Marks)

In the Martian land faraway, a new virus has evolved and is attacking the individuals at a fast pace. The scientists have figured out the virus composition, **V**. The big task is to identify the people who are infected. The sample of **N** people is taken to check if they are POSITIVE or NEGATIVE. A report is generated which provides the current blood composition **B** of the person.

POSITIVE or NEGATIVE ?
If the blood composition of the person is a subsequence of the virus composition V, then the person is identified as POSITIVE otherwise NEGATIVE.

Example:
Virus Composition, V = coronavirus
Blood Composition of the person , B = ravus

The person in question is POSITIVE as B is the subsequence of the V.
The scientists are busy with their research for medicine and request you to build a program which can quickly figure out if the person is POSITIVE or NEGATIVE. They will provide you with the virus composition V and all the people's current blood composition. Can you help them?

Note: The virus and blood compositions are lowercase alphabet strings.

Input Format

The first line of the input consists of the virus composition, V
The second line of he input consists of the number of people, N
Next N lines each consist of the blood composition of the ith person, Bi

Constraints

1<= N <=10
1<= |B|<= |V|<= 10^5

Output Format

For each person, print POSITIVE or NEGATIVE in a separate line

Sample TestCase 1

Input
coronavirus

3
abcde
crnas
onarous

Output
NEGATIVE
POSITIVE
NEGATIVE

Time Limit(X):

0.50 sec(s) for each input.

Memory Limit:

512 MB

Source Limit:

100 KB

Allowed Languages:

C, C++, C++11, C++14, C#, Java, Java 8, Kotlin, PHP, PHP 7, Python, Python 3, Perl, Ruby, Node Js, Scala, Clojure, Haskell, Lua, Erlang, Swift, VBnet, Js, Objc, Pascal, Go, F#, D, Groovy, Tcl, Ocaml, Smalltalk, Cobol, Racket, Bash, GNU Octave, Rust, Common LISP, R, Julia, Fortran, Ada, Prolog, Icon, Elixir, CoffeeScript, Brainfuck, Pypy, Lolcode, Nim, Picolisp, Pike, pypy3