**Virus Outbreak**

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

Constraints 1<= N <=10

1-<=:1131<= IVI<= 10^5

Output Format \_ For each person. print POSITIVE or NEGATIVE in a separate line

**Sample TestCase Input**

coronavirus

3

abcde

cmas

onerous

**Output**

NEGATIVE

POSITIVE

POSITIVE

**Sample TestCase Input** 2

**Input:**

Hantavirus

4

ant

aavus

sutah

hanta

**output**

POSITIVE

POSITIVE

NEGATIVE

NEGATIVE