

Problem G

Smart Key

Time limit: 1 second
Memory: 1024 megabytes

Problem Description

In the era of technological development, many modern hotels have switched to using electronic lock systems to manage security for each room more effectively. Electronic locks are not only convenient but also enhance the security of guests. This system allows staff to easily open doors without needing physical keys, using only key cards or electronic cards issued to employees.

Employee An is one of the hotel staff members who has been issued a specific card to manage certain rooms in the hotel. An's card code is a string T, which can contain letters and wildcard characters represented by a question mark ('?').

The hotel has a total of N rooms, numbered from 1 to N. Each room has a unique lock code K_i , which is a string consisting only of letters. When employee An places the card on the card reader at room i, the card code T will be compared with the lock code K_i . If the card code matches the room's lock code, the door will open.

The card code T is considered a match with the lock code S when it satisfies the following conditions:

- The number of characters in T equals the number of characters in S.
- At each corresponding position j of the two strings, T[j] must equal S[j] or T[j] can be a '?' (which means it can substitute any character).

Problem Requirements: Given An's card code and the lock codes of N rooms, check which rooms An's card can unlock in the hotel.

Input Structure:

- The first line contains the string representing An's card code T.
- The second line contains a positive integer N (with $N \leq 500$), representing the number of rooms.
- The next N lines each contain a string representing the lock code K_i of room i (the length of each string does not exceed 255 characters).

Output Structure:

- The program should output N lines, where each line corresponds to the unlocking capability of An's card for each room. If the card can unlock the room, print 1; otherwise, print 0.

Example:

INPUT	OUTPUT
<i>a? aba</i>	1
2	0
<i>aaaba</i>	
<i>abacb</i>	