
Submit: `purify.c` / `purify.cpp` / `purify.pas`
Input: `stdin`
Output: `stdout`

Time limit: 1 s
Memory limit: 64 MB
Points: 100

Your task is to clean all the mess (the list of the forbidden words) in your room (text string).

Task:

Write a program, which removes all occurrences of the strings N_i from the string P . More precisely defined, until P contains some of the strings N_i , you should take the shortest prefix of P , which contains some of the strings N_i and delete the shortest string from N_i that this prefix contains.

Input:

On the first line, there is one string P , which consists of the digits and lower and upper case of the english alphabet. The length of P is at most 10^5 . On the remaining lines of the input, there is always exactly one string N_i , which consists of the digits and lower and upper case of the english alphabet. The overall length of all the strings N_i is also at most 10^5 .

Output:

On the only line of the output, write the rest of P after removing all N_i . You can assume, that the length of the rest of P will be always at least 1.

Example:

input	output
Huffleklek	Hu
flek	

input	output
0001	01
00	
000	