Submit: `purify.c` / `purify.cpp` / `purify.pas`   Time limit: 1 s
Input: stdin   Memory limit: 64 MB
Output: stdout   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 occurences 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 consits 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 consints 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
```