

A. Autocomplete

time limit per test: 2 seconds

memory limit per test: 256 megabytes

input: standard input

output: standard output

Autocomplete is a program function that enables inputting the text (in editors, command line shells, browsers etc.) completing the text by its inputted part. Vasya is busy working on a new browser called 'BERowser'. He happens to be working on the autocomplete function in the address line at this very moment. A list consisting of n last visited by the user pages and the inputted part s are known. Your task is to complete s to make it an address of one of the pages from the list. You have to find the lexicographically smallest address having a prefix s .

Input

The first line contains the s line which is the inputted part. The second line contains an integer n ($1 \leq n \leq 100$) which is the number of visited pages. Then follow n lines which are the visited pages, one on each line. All the lines have lengths of from 1 to 100 symbols inclusively and consist of lowercase Latin letters only.

Output

If s is not the beginning of any of n addresses of the visited pages, print s . Otherwise, print the lexicographically minimal address of one of the visited pages starting from s .

The lexicographical order is the order of words in a dictionary. The lexicographical comparison of lines is realized by the '<' operator in the modern programming languages.

Examples

input

```
next
2
nextpermutation
nextelement
```

output

```
nextelement
```

input

```
find
4
find
findfirstof
findit
fand
```

output

```
find
```

input

```
find
4
fondfind
fondfirstof
fondit
fand
```

output

```
find
```