

# E : Searching box

## Description

Zlly has been annoyed with English words for a long time even though he conquered it finally. These days he is devoting himself to English words searching box, he wants to make it convenient for searching English words.

Here is the rules:

There is a words library containing  $n$  words, each word's length is no more than 20.

Here are  $m$  queries among the library, each query is a string, he wants to output the first 8 (if there are so many) words by increasing lexicographic whose prefixes match the given string.

if no words can be matched, just output the query string.

If there are not so many (eight) words in the library, just output all matched words.

All the words in the library and the query string are constructed by Lower case letters. Now he is so busy because something you don't know, can you help him?

## Input

Line 1: One integer:  $n$  ( $n \leq 1000$ ) represents the number of words in the library.

Next  $n$  lines: one string represents one word in the library.

Line  $n+2$ : One integer:  $m$  ( $m \leq 10000$ ) represents and the number of queries.

Next  $m$  lines: one string represents one query.

## Output

for each query,output one line ,the result of the query by increasing lexicographic,separate two words with a space.

## Sample Input

24

apple

banana

p

pa

peach

peach

orange

grape

pear

kiwi

papaya

mangoes

pineapple

watermelon

plum

strawberry

cherry

lemon

blueberry

litchi

persimmon

manggo

pawpaw

pomelo

10

p

pe

pa

pi

pl

o

u

ma

l

b

## Sample Output

p pa papaya pawpaw peach peach pear persimmon

peach peach pear persimmon

pa papaya pawpaw

pineapple

plum

orange

u

manggo mangoes

lemon litchi

banana blueberry