Puzzle Solver

Little Joey loves to play puzzles, whether it is jigsaw puzzles, logic puzzles, or math problems. But his absolute favorite is word problems! One of his favorite word puzzle games is Jungle. Jungle is played like this: you are given a word (usually a pretty long word) and you try to make as many words as you can from that word. Little Joey knows quite a lot of words, but he obviously can't remember every word ever made, so this is where you come in. Given a dictionary of all available words, your job is to create a list of all possible words that can be created from a long word so that Little Joey can find out how well he did.

Input

Input begins with a single positive integer, D (D ≤ 1000), the number of words in the dictionary. Each word in the dictionary will be less than 15 characters long, and will be purely lowercase letters. Each dictionary word will be printed on a new line, with no leading or trailing white-space. Following this is an integer W (W ≤ 50), the number of "long words" to make words from. These words can be between 1 and 100 alphabetic characters long (but may contain spaces). Each of these will be printed on a new line as well. There may be multiple input files.

Output

For each of the "long words," output should be formatted as follows: Print the original "long word" on a line by itself. Then for each word you can make from it, print three spaces, followed by the word itself. These words should be printed in alphabetical order. Separate long words by a single blank line (an extra blank line at the end doesn't matter).

Sample Input

```
10
chose
lame
heal
cup
cups
such
shop
melon
pizza
lemonade
2
Hocus Pocus
Chameleon
```

Sample Output

```
Hocus Pocus
  cup
  cups
  shop
  such

Chameleon
  heal
  lame
  melon
```