

Word Trouble

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Time limit: 1 second

Memory limit: 256 megabytes

Samia has a medical condition called dyslexia, which means she faces trouble while reading words. When she sees a word, all its letters get shuffled with each other in her mind, and she cannot read the original word. For example, if the original word is "man", Samia will read it as "nam", or "mna", or "anm", or "amn", or "nma".

Her mom took her to the doctor. The doctor gave her a list of words to read to check her condition. From the list, Samia picked a word and read it out loud. Since she read the shuffled version of the word, the doctor is unable to find which word she actually read from the list. The doctor needs your help to find the exact original word Samia read.

Input

The first line contains the word Samia read out loud.

The next line contains n ($1 \leq n \leq 100$), the total number of words the list contains.

The next n lines contain n words that are present in the list.

The maximum length of each word is 10. All the characters are in lowercase.

Output

From the list, print the original word that Samia read.

Sample Input	Sample Output
mna 3 sun name man	man
matoto 5 potato car summer totomato tomato	tomato