Problem 1

Joanna has a weird habit of distorting the usual things. For instance, she wonders why the English alphabet has the order that it has and plans to play around with different permutations of the English alphabet. Now she wonders what an English dictionary would be arranged like with a certain permutation of alphabet. Help her arrange the given set of words accordingly.
To put it around simply, for a particular permutation of the English alphabet, A, and a given set of words, W, output the lexicographical ordering of these words based on the new alphabet, A.

Input
The first line contains an integer, T, denoting the number of test cases.
For each test case:
The first line contains a string, denoting a permutation of English alphabet, A.
The next line contains a single integer N, denoting the size of the set W.
Following N lines each contain a single word, containing lowercase English letters

Output
For each test case, output N lines with each line containing a word from set W, ordered lexicographically according to A.

Constraints:
1 <= T <= 1000
1 <= N <= 10^4
1 <= |W| <= 80

Sample Input

2
abcdefghijklmnopqrstuvwxyz
2
sunny
bobo
eswrbacdfghijklmnopqtuvxyz
2
maggi
merry

Sample Output

bobo
sunny
merry
maggi