Random Sort

Problem #9
Novice / Advanced
9 points

Task Description

Since the dawn of computing, the sorting problem has attracted a great deal of research, perhaps due to the complexity of solving it efficiently despite its simple, familiar statement. Efficient sorting is important to optimizing the use of other algorithms (such as search and merge algorithms) that require sorted lists to work correctly.

Your task is simple. Alphabetize and output a given list of words. Seems straightforward, but where would be the fun in that? To mix things up a bit—pun intended—you will be given a new alphabet along with the wordlist in which to work. Happy sorting!

Program Input

Sample data is contained in Prob09.in. Read this data using one of the methods described on your "Contest Instructions" sheet, under "Program Input/Output". The first line of input will be your alphabet which will be a string of upper case letters. The rest of the input will be a list of words—one word per line—to be sorted. Words will consist of both upper and lower case letters. There are no bounds to the number of words. Your program should detect the end of input.

Program Output

Your program should output the alphabetized list of words--one word per line.

Sample Program Input / Output

Sample Input:

```
QWERTYUIOPASDFGHJKLZXCVBNM
hat
cat
bat
book
bookworm
Dallas
Austin
Houston
fire
firefox
fumble
```

Sample Output:

```
Austin
Dallas
fumble
fire
firefox
Houston
hat
cat
book
bookworm
bat
```