Problem A: Anagram Groups

Source file: anagram.(c|C|java|pas)
Input file: anagram.in

World-renowned Prof. A. N. Agram's current research deals with large anagram groups. He has just found a new application for his theory on the distribution of characters in English language texts. Given such a text, you are to find the largest anagram groups.

A text is a sequence of words. A word w is an anagram of a word v if and only if there is some permutation p of character positions that takes w to v. Then, w and v are in the same anagram group. The size of an anagram group is the number of words in that group. Find the 5 largest anagram groups.

Input Specification

The input contains words composed of lowercase alphabetic characters, separated by whitespace. It is terminated by EOF.

Output Specification

Output the 5 largest anagram groups. If there are less than 5 groups, output them all. Sort the groups by decreasing size. Break ties lexicographically by the lexicographical smallest element. For each group output, print its size and its member words. Sort the member words lexicographically and print equal words only once.

Sample Input

```
undisplayed
trace
tea
singleton
eta
eat
displayed
crate
cater
carte
```

```
caret
beta
beat
bate
ate
abet
```

Sample Output

```
Group of size 5: caret carte cater crate trace .
Group of size 4: abet bate beat beta .
Group of size 4: ate eat eta tea .
Group of size 1: displayed .
Group of size 1: singleton .
```