

Word Scrambler

Time limit: 0.6s **Memory limit:** 32M

Looking to find some clever anagrams, you want a helper tool that will list all possible arrangements of letters for a given source word. To make the list easier to scan, the output should be in ascending sorted order.

Input Specification

The input will consist of one string of lower-case alphabet characters, at least 1 character long, and no more than 5.

Output Specification

The output should contain **all the possible combinations** of letters in the word, **sorted alphabetically**.

To make things easier, all of the letters in each word are guaranteed to be unique (so then every combination will also be unique).

Note: since there are $n!$ possibilities for combinations of n letters, you can use that fact to check that you have the right number of possibilities in your output.

Sample Input

```
abc
```

Sample Output

```
abc
acb
bac
bca
cab
cba
```