

2900 - LEKTIRA

Description

Mario is making up silly games again instead of reading Dostoevsky for school. The rules of his newest game follow.

First he chooses a random word from the book. Then he splits the word in two arbitrary places to get three separate words. After that he reverses the order of the letters in each of those three words (exchanges the first and last letters, the second and second last and so on). Finally, he puts the three words back together in the same order in which they were before splitting.

The goal of the game is to obtain the lexicographically smallest word possible. In other words, of all words that can be obtained by the above procedure, find one which would be earliest in a dictionary. Write a program that plays Mario's game perfectly.

Input specification

The first and only line of input contains Mario's chosen word, a string of lowercase letters of the English alphabet with no spaces. The input word will be between 3 and 50 characters long (inclusive).

Output specification

Output the best word on a single line.

Sample input

```
dcbagfekjih
```

Sample output

```
abcdefghijkl
```

Hint(s)

Sample input #2

```
mobitel
```

Sample output #2

bometil

Sample input #3

anakonda

Sample output #3

aanadnok

Source	Croatian Open Competition in Informatics, contest 4 – January 26, 2008
Added by	ralcolea
Addition date	2014-05-07
Time limit (ms)	10000
Test limit (ms)	1000
Memory limit (kb)	65535
Output limit (mb)	64
Size limit (bytes)	30000
Enabled languages	Bash C C# C++ Java Pascal Perl PHP Python Ruby Text