Problem Bonus String

Time Limit 1 second

Problem

Miss Elen is a 3rd grade English teacher. One day she decided to give a classwork. She told the students to write the longest word they know and for 3 students who finished writing first she would give them a bonus of 3, 5 and 7. Given 3 strings of what the top 3 students constructed. Put them in increasing order of the bonus marks they get. Note that if two strings are equal in length sort them in alphabetical order.

Input

The input consists of 3 lines. Each line is a string of what the students wrote. All strings are lowercase. each string contain atleast 1 alphabet and maximum 30.

Output

Your out put should contain 3 lines displaying the strings of what the students wrote in increasing order of the bonus marks they are going to get.

Sample Input 1	Sample Output 1
coding is wonderful	is coding wonderful

Sample Input 2	Sample Output 2
coding is boring	is boring coding