Most Common

You are given a string S.

The string contains only lowercase English alphabet characters.

Your task is to find the top three most common characters in the string S.

Input Format

A single line of input containing the string S.

Constraints

$$3 < len(S) < 10^4$$

Output Format

Print the three most common characters along with their occurrence count each on a separate line. Sort output in descending order of occurrence count.

If the occurrence count is the same, sort the characters in ascending order.

Sample Input

aabbbccde

Sample Output

b 3

a 2

c 2

Explanation

Here, *b* occurs **3** times. It is printed first.

Both a and c occur 2 times. So, a is printed in the second line and c in the third line because a comes before c.

Note: The string S has at least 3 distinct characters.