Minimalist Strings

In your quest for minimalism, you appreciate patterns that embody elegance and efficiency. You have a preference for strings that contain no more than two unique letters, as they possess a certain beauty that is pleasing to your eye.

Unfortunately, your friend has presented you with a complex string that does not meet your standards.

To rectify this, you possess a magical eraser that can remove a single letter from any given string. Your task is to use this eraser to transform the string into a more elegant and efficient form that contains no more than two distinct letters.

Your challenge is to determine the minimum number of letters that must be removed from the string to create this new form. By distilling the essence of the string and removing unnecessary letters, you can create a new pattern that embodies the principles of minimalism and beauty.

Input

Each input will consist of a single test case. Each test case consists of a single string of at least 1 and at most 100 lowercase letters.

Output

The output must consist of a single integer that indicates this minimum number of letters to be erased, ensuring that the resulting string embodies the principles of minimalism and beauty that you hold dear (string contains no more than two unique letters).

Sample Input

aaaaaaa
integer
mississippi
frifri
abcdefg

Sample Output

0
4
3
2
5