Peragrams

Problem ID: peragrams
CPU Time limit: 1 secon
Memory limit: 1024 MB
Difficulty: 1.7

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Source: KTH Challenge 2

Per recently learned about *palindromes*. Now he wants to tell us about it and also has more awesome scientific news to share with us.

"A palindrome is a word that is the same no matter whether you read it backward or forward", Per recently said in an interview. He continued: "For example, *add* is not a palindrome, because reading it backwards gives *dda* and it's actually not the same thing, you see. However, if we reorder the letters of the word, we can actually get a palindrome. Hence, we say that *add* is a *Peragram*, because it is an anagram of a palindrome".

Per gives us a more formal definition of *Peragrams*: "Like I said, if a word is an anagram of at least one palindrome, we call it a *Peragram*. And recall that an anagram of a word w contains exactly the same letters as w, possibly in a different order."

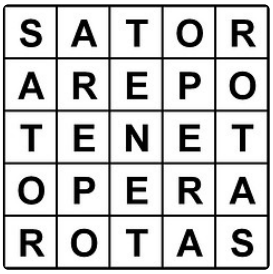

Photo by Ross Beresford

Task

Given a string, find the minimum number of letters you have to remove from it, so that the string becomes a Peragram.

Input

Input consists of a string on a single line. The string will contain at least 1 and at most 1 000 characters. The string will only contain lowercase letters `a-z`.

Output

Output should consist of a single integer on a single line, the minimum number of characters that have to be removed from the string to make it a Peragram.

Sample Input 1

```
abc
```

Sample Output 1

```
2
```

Sample Input 2

```
aab
```

Sample Output 2

```
0
```