PROBLEMS   SUBMIT CODE   MY SUBMISSIONS   STATUS   STANDINGS   CUSTOM INVOCATION

H. Help Eevee Pls Eh

time limit per test: 1 second

memory limit per test: 1024 megabytes

Eevee recently learned that its name is a palindrome! This means that it reads the same forward and backward.

However, Eevee is sad to discover that not many words are palindromes. One day, Eevee was visited by a friend. Upon hearing the friend's name, Eevee became curious.

Eevee wondered how many different ways there are to remove a single character from the friend's name so that the remaining characters, when concatenated, form a palindrome.

For example, in `eevaee`, removing either `v` or `a` is valid, but removing any of the `e`'s is not.

We define a palindrome as the following: Given a string $S = s_1 s_2 \ldots s_n$, we pair $(s_1, s_n), (s_2, s_{n-1}), \ldots,$ $\left(s_{\lfloor \frac{n}{2} \rfloor}, s_{\lfloor \frac{n}{2} \rfloor + 1}\right)$. S is a palindrome if and only if in all of these $\lfloor \frac{n}{2} \rfloor$ pairs the characters in the pairs are identical.

Input

The first line of input contains an single string S ($2 \le |S| \le 10^6$), the friend's name consisting of lowercase English letters `a` to `z`.

Output

Output a single integer representing the number of ways to remove a character from S such that it becomes a palindrome.

Examples

input	Copy
eevaee	

output	Copy
2	

input	Copy
helpeeveeplseh	

output	Copy
1	

Note

For the string `eevaee`$= s_1 s_2 s_3 s_4 s_5 s_6$, if we simulate removing each character:

Removing s_1: We have pairs $(s_2, s_6), (s_3, s_5)$, 1 of these pairs are identical.

Removing s_2: We have pairs $(s_1, s_6), (s_3, s_5)$, 1 of these pairs are identical.

Removing s_3: We have pairs $(s_1, s_6), (s_2, s_5)$, 2 of these pairs are identical.

Removing s_4: We have pairs $(s_1, s_6), (s_2, s_5)$, 2 of these pairs are identical.

Removing s_5: We have pairs $(s_1, s_6), (s_2, s_4)$, 1 of these pairs are identical.

Removing s_6: We have pairs $(s_1, s_5), (s_2, s_4)$, 1 of these pairs are identical.

Thus, only for 2 of the characters is the number of valid pairs $\lfloor \frac{5}{2} \rfloor = 2$, thus the answer is 2.

NUS CS3233 Final Team Contest 2025

Finished

Practice

⭐

→ Virtual participation ⌄

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[Start virtual contest]

→ Clone Contest to Mashup ⌄

You can clone this contest to a mashup.

[Clone Contest]

→ Submit?

Language: [GNU G++20 13.2 (64 bit, win ⌄]

Choose file: [Choose File] No file chosen

[Submit]

→ Last submissions

Submission	Time	Verdict
315682158	Apr/15/2025 12:06	Accepted
315681025	Apr/15/2025 11:57	Wrong answer on test 3
315680809	Apr/15/2025 11:55	Wrong answer on test 3

→ Contest materials

- Announcement (en) ✕
- Tutorial (en) ✕

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