CMPUT 275 - Tangible Computing **Winter 2018**
Morning Problem: Palindromes

Description

A palindrome is a string that reads the same forward or backwards. Putting it another way, it equals its reversal. So `ogopogo` and `racecar` are palindromes yet `banana` and `emma` are not.

Your task is simple. Find the length of the longest **odd-length palindrome** that is a substring of a given string. We do not care about palindromes of even length today.

Input

Input consists of a single line with a single string. This string will contain only lowercase letters and will have length between 1 and 1000.

Output

Output a single integer k on a single line. This should be the length of the longest odd-length palindrome that appears as a substring of the input string.

Sample Input 1

```
banana
```

Sample Output 1

```
5
```

Explanation for Sample 1

The string `anana` is a palindrome with length 5, and there are no longer odd-length palindromes.

Sample Input 2

```
aababbbabba
```

Sample Output 2

```
7
```

Explanation for Sample 2

The substring `babbbab` is a palindrome with length 7, and there are no longer odd-length palindromes.

Sample Input 3

```
deed
```

Sample Output 3

```
1
```

Explanation for Sample 3

Though `deed` is a palindrome, it has even length. The only odd-length palindromes that are a substring of this string are strings of length 1, namely `d` or `e`.