

## Problem F

# Symmetric

Time limit: 1 second  
Memory: 1024 megabytes

### Problem Description

An's exercise today involves strings and their symmetry. A string is called symmetric (or a palindrome) if reading it from left to right yields the same result as reading it from right to left. For example, strings like 'a', 'aa', 'aba', and 'abba' are symmetric, while the string 'babaa' is not symmetric.

The task in this exercise is as follows: Given a string S that consists of lowercase Latin letters and is guaranteed not to be a palindrome, your task is to find the shortest palindrome you can create by adding a number of characters to the left of the string S. You need to determine the length of the shortest symmetric string that can be formed by adding some characters to the left of S.

For example, if the string S is 'abc', you can add the characters 'cb' to the left of it to form the string 'cbabc', which is symmetric. The length of this symmetric string is 5.

### Input:

- The input consists of a single line containing the string S. The length of S does not exceed 500,000 lowercase Latin letters.

### Output:

- The result is a single positive integer, which represents the length of the shortest symmetric string that can be formed by adding characters to the left of S.

### Example:

INPUT	OUTPUT
abc	5