I   Isomorphic Inversion

Let s be a given string of up to 10^6 digits. Find the maximal k for which it is possible to partition s into k consecutive contiguous substrings, such that the k parts form a palindrome. More precisely, we say that strings $s_0, s_1, \ldots, s_{k-1}$ form a palindrome if $s_i = s_{k-1-i}$ for all $0 \le i < k$.

In the first sample case, we can split the string `652526` into 4 parts as `6|52|52|6`, and these parts together form a palindrome. It turns out that it is impossible to split this input into more than 4 parts while still making sure the parts form a palindrome.

Input

- A nonempty string of up to 10^6 digits.

Output

- Print the maximal value of k on a single line.

Sample Input 1	Sample Output 1
652526	4

Sample Input 2	Sample Output 2
12121131221	7

Sample Input 3	Sample Output 3
123456789	1

Sample Input 4	Sample Output 4
132594414896459441321	9