## 题目描述

Given two strings a and b we define a\*b to be their concatenation. For example, if a = "abc" and b = "def" then a\*b = "abcdef". If we think of concatenation as multiplication, exponentiation by a non-negative integer is defined in the normal way: a^0 = "" (the empty string) and a^(n+1) = a\*(a^n).

## 输入

Each test case is a line of input representing s, a string of printable characters. The length of s will be at least 1 and will not exceed 1 million characters. A line containing a period follows the last test case.

## 输出

For each s you should print the largest n such that s = a^n for some string a.

## 样例输入

abcd

aaaa

ababab

.

## 样例输出

1

4

3