

HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP

STEP 1 STEP 2 STEP 3 STEP 4 STEP 5 | THEORY PRACTICE | SUBMIT SUBMISSIONS HACKS STANDINGS CUSTOM INVOCATION ITMO Academy: pilot course » Suffix Array » Step 5 » Practice

F. Periodic Substring

time limit per test: 3 seconds¹ memory limit per test: 512 megabytes

Given the string s. Find a maximum integer k such that there is a non-empty substring in the string s that is a concatenation of k equal strings.

Input

The first line of input contains the string s (1 $\leq |s| \leq 400\,000$). The string consists of lowercase English letters.

Output

Print the desired value k.

Examples	
input	Сору
aabaaabaaabaab	
output	Сору
4	
input	Сору
aabaabb	
output	Сору
2	
input	Сору
aaaa	
output	Сору
4	
input	Сору
ppppplppp	
output	Сору
5	
input	Сору
nn	
output	Сору
2	

Note

In the first example, a substring that repeats $4\ \mathrm{times}$ is "abaa".

Codeforces (c) Copyright 2010-2024 Mike Mirzayanov
The only programming contests Web 2.0 platform
Server time: Aug/01/2024 23:11:44 (j3).
Desktop version, switch to mobile version.

Privacy Policy

Supported by



