

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

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

E. Test

time limit per test: 2 seconds memory limit per test: 256 megabytes

Sometimes it is hard to prepare tests for programming problems. Now Bob is preparing tests to new problem about strings — input data to his problem is one string. Bob has 3 wrong solutions to this problem. The first gives the wrong answer if the input data contains the substring s_1 , the second enters an infinite loop if the input data contains the substring s_2 , and the third requires too much memory if the input data contains the substring s_3 . Bob wants these solutions to fail single test. What is the minimal length of test, which couldn't be passed by all three Bob's solutions?

Input

There are exactly 3 lines in the input data. The i-th line contains string s_i . All the strings are non-empty, consists of lowercase Latin letters, the length of each string doesn't exceed 10^5 .

Output

Output one number — what is minimal length of the string, containing s_1 , s_2 and s_3 as substrings.

Examples

input	Сору
ab	
bc bc	
cd	
output	Сору
4	
input	Сору
abacaba	
abaaba	
x	
output	Сору
11	

→ Attention

The package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, a solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then the value 800 ms will be displayed and used to determine the verdict.

Codeforces Beta Round 25 (Div. 2 Only)

Finished

Practice



→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

→ **Submit?**Language: GNU G++20 13.2 (64 bit, win **>**Choose file: Choose File No file chosen Submit

	→ Last submissions		
Time	Verdict		
Sep/14/2024 03:48	Accepted		
Sep/14/2024 00:28	Runtime error on test 6		
Sep/14/2024 00:25	Runtime error on test 6		
Sep/13/2024 22:43	Runtime error on test 6		
Sep/13/2024 22:25	Runtime error on test 6		
Sep/08/2024 23:45	Accepted		
Sep/08/2024 23:31	Accepted		
Sep/08/2024 23:22	Accepted		
Sep/08/2024 23:21	Accepted		
	Sep/14/2024 03:48 Sep/14/2024 00:28 Sep/14/2024 00:25 Sep/13/2024 22:43 Sep/13/2024 22:25 Sep/08/2024 23:45 Sep/08/2024 23:31 Sep/08/2024 23:22 Sep/08/2024		