

D. Common Divisors

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

Vasya has recently learned at school what a number's divisor is and decided to determine a string's divisor. Here is what he came up with.

String a is the divisor of string b if and only if there exists a positive integer x such that if we write out string a consecutively x times, we get string b . For example, string "abab" has two divisors — "ab" and "abab".

Now Vasya wants to write a program that calculates the number of common divisors of two strings. Please help him.

Input

The first input line contains a non-empty string s_1 .

The second input line contains a non-empty string s_2 .

Lengths of strings s_1 and s_2 are positive and do not exceed 10^5 . The strings only consist of lowercase Latin letters.

Output

Print the number of common divisors of strings s_1 and s_2 .

Examples

input	Copy
abcdabcd abcdabcdabcdabcd	
output	Copy
2	

input	Copy
aaa aa	
output	Copy
1	

Note

In first sample the common divisors are strings "abcd" and "abcdabcd".

In the second sample the common divisor is a single string "a". String "aa" isn't included in the answer as it isn't a divisor of string "aaa".

→ 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 Round 117 (Div. 2)

Finished

Practice

→ Virtual participation

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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

Submission	Time	Verdict
281034328	Sep/13/2024 22:25	Accepted
280232690	Sep/07/2024 20:37	Accepted
280229748	Sep/07/2024 20:15	Wrong answer on test 1
280229306	Sep/07/2024 20:11	Wrong answer on test 60

→ Problem tags

brute force hashing implementation

math strings *1400

No tag edit access

→ Contest materials