

## A. Ultra-Fast Mathematician

time limit per test: 2 seconds

memory limit per test: 256 megabytes

input: standard input

output: standard output

Shapur was an extremely gifted student. He was great at everything including Combinatorics, Algebra, Number Theory, Geometry, Calculus, etc. He was not only smart but extraordinarily fast! He could manage to sum  $10^{18}$  numbers in a single second.

One day in 230 AD Shapur was trying to find out if any one can possibly do calculations faster than him. As a result he made a very great contest and asked every one to come and take part.

In his contest he gave the contestants many different pairs of numbers. Each number is made from digits 0 or 1. The contestants should write a new number corresponding to the given pair of numbers. The rule is simple: The  $i$ -th digit of the answer is 1 if and only if the  $i$ -th digit of the two given numbers differ. In the other case the  $i$ -th digit of the answer is 0.

Shapur made many numbers and first tried his own speed. He saw that he can perform these operations on numbers of length  $\infty$  (length of a number is number of digits in it) in a glance! He always gives correct answers so he expects the contestants to give correct answers, too. He is a good fellow so he won't give anyone very big numbers and he always gives one person numbers of same length.

Now you are going to take part in Shapur's contest. See if you are faster and more accurate.

### Input

There are two lines in each input. Each of them contains a single number. It is guaranteed that the numbers are made from 0 and 1 only and that their length is same. The numbers may start with 0. The length of each number doesn't exceed 100.

### Output

Write one line — the corresponding answer. Do not omit the leading 0s.

### Examples

|                    |                      |
|--------------------|----------------------|
| <b>input</b>       | <a href="#">Copy</a> |
| 1010100<br>0100101 |                      |
| <b>output</b>      | <a href="#">Copy</a> |
| 1110001            |                      |

|               |                      |
|---------------|----------------------|
| <b>input</b>  | <a href="#">Copy</a> |
| 000<br>111    |                      |
| <b>output</b> | <a href="#">Copy</a> |
| 111           |                      |

|               |                      |
|---------------|----------------------|
| <b>input</b>  | <a href="#">Copy</a> |
| 1110<br>1010  |                      |
| <b>output</b> | <a href="#">Copy</a> |

### Codeforces Beta Round #57 (Div. 2).

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### → 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: Java 1.8.0\_241

 Choose file: [Choose File](#) No file chosen

Be careful! there is 50 points penalty for submission which fails the pretests or resubmission (except failure on the first test, denial of judgement or similar verdicts). "Passed pretests" submission verdict doesn't guarantee that the solution is absolutely correct and it will pass system tests.

[Submit](#)

### → Last submissions

| Submission                | Time              | Verdict  |
|---------------------------|-------------------|----------|
| <a href="#">132661950</a> | Oct/22/2021 06:43 | Accepted |

### → Problem tags

implementation \*800

No tag edit access

### → Contest materials

0100

input

Copy







01110

01100

output

Copy

00010

- [Announcement \(oth\)](#) 
- [Tutorial #1 \(en\)](#) 
- [Tutorial #2 \(en\)](#) 
- [Tutorial #3 \(en\)](#) 
- [Tutorial #4 \(en\)](#) 
- [Tutorial #5 \(en\)](#) 

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The only programming contests Web 2.0 platform

Server time: Oct/21/2021 23:43:45<sup>UTC-4</sup> (g2).

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