PROBLEM B. BINARY STRING

Time limit: 1 second

A substring is a contiguous sequence of characters in a string. For example, “a”, “bcd”, “e” are substrings of “abcde” but “ace” isn’t.

You are given 2 binary strings A and B (binary string only consists of ‘0’ and ‘1’). Your task is to find a binary string C with smallest length such that C is not a substring of A and C is not a substring of B. If there are multiple strings with smallest length, find one with smallest lexicographical order.

String $X = x_1x_2 \dots x_n$ is lexicographically smaller than string $Y = y_1y_2 \dots y_n$ if $x_i < y_i$ for the first i where x_i and y_i differ. In this problem, character ‘0’ is considered less than character ‘1’.

Input

The first line of input contains binary string A. The second line of input contains binary string B. Both are not empty and their length does not exceed 1000.

Output

Output string C in one line.

Sample

INPUT	OUTPUT
0001 110	010