Problem E. LCS

Time limit 2000 ms
Mem limit 1048576 kB

Problem Statement

You are given strings s and t. Find one longest string that is a subsequence of both s and t.

Notes

A *subsequence* of a string x is the string obtained by removing zero or more characters from x and concatenating the remaining characters without changing the order.

Constraints

- s and t are strings consisting of lowercase English letters.
- $1 \leq |s|, |t| \leq 3000$

Input

Input is given from Standard Input in the following format:

```
s
t
```

Output

Print one longest string that is a subsequence of both s and t. If there are multiple such strings, any of them will be accepted.

Sample 1

Input	Output
axyb abyxb	axb

The answer is `axb` or `ayb`; either will be accepted.

Sample 2

Input	Output
aa xayaz	aa

Sample 3

Input	Output
a z	

The answer is (an empty string).

Sample 4

Input	Output
abracadabra avadakedavra	aaadara