

Problem G. Pencil of Wishing

Input file: *standard input*
Output file: *standard output*
Time limit: 2.3 seconds
Memory limit: 512 mebibytes

Andrew likes playing a role-playing game “WebDDoS”. At the moment he’s got a valuable artifact called “Pencil of Wishing”. With its help one can obtain any game item writing a special spell.

A spell is a string that consists of lowercase English letters and characters `?` and `*`. Every game item has its unique codename that consists of lowercase English letters. An item *matches* a spell if it’s possible to replace each `?` with a lowercase English letter and each `*` with several (maybe zero) lowercase English letters in such a way that the resulting string is the item’s codename.

The artifact is so powerful that it gives its owner all items that match the written spell. Andrew needs item *A* but he absolutely doesn’t want item *B*. In order to save magical energy he asks you to find a spell of minimal length such that item *A* matches it but *B* does not.

Input

The first line contains the item *A*’s codename.

The second line contains the item *B*’s codename.

Codenames are different and non-empty, they consist only of lowercase English letters and contain no more than 700 characters.

Output

Output a spell which satisfies Andrew’s request. If there are several possible spells output any of them.

Examples

standard input	standard output
aabb ab	*bb
abaabaaabbbbaabbb abaabbbbaabaaabbb	*b?????
amuletofyendor amuletofshmendor	*y*