Problem A. Template for Search

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

You are required to find a palindome string with a minimal length which matches a given template for search. Palindrome is a string which can be read in the same way in both directions (forward and backward). An empty string is also a palindrome. The template can contain lower case latin letters corresponding to the same letters in a string, symbol '?' corresponding to an arbitrary latin letter and symbol '*' corresponding to a zero or more arbitrary latin letters.

Input

First line contains a string s — a template string. This string contains only lower case latin letters, symbols '?' and '*'.

$$1 \le |s| \le 500$$

Output

You are required to print a single line containing a palindrome string with a minimal length which matches a given template. The palindrome should contain only lower case latin letters. If there is no such palindrome, you are required to output "`-1`". If there are multiple possible palindromes, you may output any of them.

Examples

standard input	standard output
`*ac?ba`	`abacaba`
`ac?ba`	`-1`