simple palindromes

A palindrome is a word or phrase which is the same backwards and forwards. Capitalisation and punctuation don't count.

Input

A list of words or phrases one at a time

Output

Each word, followed by " is a palindrome" or " is not a palindrome"

Example

Input:
dad
Hannah
A man, a plan, a canal, Panama!

Output:
dad is a palindrome
Hannah is a palindrome
A man, a plan, a canal, Panama! is a palindrome