

Problem 2  
Palindrome

Difficulty: Level 1

A phrase is a palindrome if, after converting all uppercase letters into lowercase letters and removing all non-alphanumeric characters, it reads the same forward and backward. Alphanumeric characters include letters and numbers.

Given a string *s*, return true if it is a palindrome, or false otherwise.

Input is from a text file (input1.txt)  
Output should be in a text file (output1\_SID.txt)

Example

Input:

Hello

A man, a plan, a canal: Panama

Race a car

Eye

z

Output:

False

True

False

True

True