**Problem 2**

A palindrome is a sequence of characters or numbers that looks the same forwards and backwards. For example, "Madam, I'm Adam" is a palindrome because it is spelled the same reading it from front to back as from back to front. The number 12321 is a numerical palindrome. Write a function that takes a string and recursively determines whether the string is a palindrome:

**Sample Input Sample Output**

**2**  yes

noon no

turtle

**Problem 3**

Write a program that reads integer x and y and computes their Greatest Common Divisor recursively.

**Sample Input Sample Output**

**2**  6

12 6 4

8 20

**Problem 4**

Given a non-negative integer n, write a function that returns the sum of its digits recursively.

**Sample Input Sample Output**

**3**  9

126 13

49 3

12

**Problem 5**

Given a string, compute recursively a new string where all the 'x' chars have been removed.

**Sample Input Sample Output**

**2**  ab

xaxb abc

abc

**Problem 6**

Given a string, compute recursively a new string where identical chars that are adjacent in the original string are separated from each other by a "**\***".

**Sample Input Sample Output**

**3** hel\*lo

hello x\*xy\*y

xxyy a\*a\*a\*a

aaaa