Challenge

Spare Time Teaching

February 9, 2015

You may not add parameters or change the output.
Inspired by Olivier Danvy and Mayer Goldberg.

Problem

Write a scheme function that, given a list `(`x_1 x_2 `...` x_{n-1} x_n`)` determines if the list is a palindrome ($x_i = x_{(n+1)-i}$ for $1 \leq i \leq n$) in $\frac{n}{2}$ recursive calls and with no auxiliary list.

Example

```
> (ch '(1 2 2 3 2 2 1))
#t
> (ch '(1 2 2 3 2 2 1 2))
#f
```