Challenge

Spare Time Teaching

April 22, 2015

Problem

Write a function, `reverse_append` that takes two lists, x_0 x_1 ... x_n and y_0 y_1 ... y_n, of length n and returns the result of `reverse (append xs ys)` = y_n y_{n-1} ... y_0 x_n x_{n-1} ... x_0. You may only use n recursive calls.

```
Compute reverse_append (6 :: 5 :: 4 :: nil) (3 :: 2 :: 1
    :: nil).
(*
    = 1 :: 2 :: 3 :: 4 :: 5 :: 6 :: nil
    : list ℕ
 *)
```