Fall 2003

CMSC 420
Samet

LISP FUNCTION PROOFS ASSIGNMENT

1. Prove that the definition of `APPEND` is associative. In other words, `APPEND(x,APPEND(y,z))`≡`APPEND(APPEND(x,y),z)`. [Hint: use induction on the length of the list bound to `x`.]

2. Show how the `FLAT` function can be transformed to yield the `FLAT2` function using the transformations we described for adding an accumulator variable and thereby making the function be tail recursive.