LIST PROCESSING — NTH and LAST.

Problem 1. Write a recursive-process procedure called \texttt{nth} that retrieves the \textit{n}th element of a list. Count from 1; e.g., the 1\textsuperscript{st} element of a list is the car of that list. Make sure that the zeroth element of any list returns the empty list, and that if asking for an item beyond the end of the list, your function returns the empty list.

Problem 2. Convert your procedure into an iterative-process version.
**Problem 3.** Write a procedure `last`, which returns the last item of a list. The last item of an empty list is an empty list.