

## Problem 2a)

### Algorithm: in-situ reverse linked list

procedure ReverseLinkedList

if (Start is NULL)

exit

while (current node  $\neq$  NULL)

nextnode = node after current node

node after current node = previous node

previous node = current node

current node = next node

Start node = previous node

This is in-situ because it does not create a new linked list, it just reverses the current linked list's nodes pointers. It uses the nextnode, current node, previous node pointers to help do this. However, they have constant memory, as such it is in-situ.