**C Sc 227 In-Class Activity** [**http://webster.cs.washington.edu:8080/practiceit/**](http://webster.cs.washington.edu:8080/practiceit/)

**From Building Java Programs, Stuart Reges and Marty Stepp**

**Self-Check 16.10**

Write the code necessary to convert the following sequence of ListNode objects:

 list -> [1] -> [2] /

Into this sequence of ListNode objects:

list -> [3] -> [1] -> [2] /

Assume that you are using ListNode class as defined in the textbook:

public class ListNode {

public int data; // data stored in this node

public ListNode next; // a link to the next node in the list

public ListNode() { ... }

public ListNode(int data) { ... }

public ListNode(int data, ListNode next) { ... }

}

**Write answer here**

**Self-Check 16-12**

Write the code necessary to convert the following sequence of ListNode objects:

list -> [1] -> [2] -> [3] /

Into these sequences of ListNode objects:

list -> [2] /

list2 -> [1] -> [3] /

Assume that you are using ListNode class as defined above

**Write answer here**

**Self-Check 16-14**

Write the code necessary to convert the following sequence of ListNode objects:

list -> [5] -> [4] -> [3] /

Into this sequence of ListNode objects:

list -> [3] -> [4] -> [5] /

Assume that you are using the ListNode class above

**Write answer here**

**Exercise 16-1**

Write a method set that accepts an index and a value and sets the list's element at that index to have the given value. You may assume that the index is between 0 (inclusive) and the size of the list (exclusive). Assume that you are adding this method to the LinkedIntList class as defined below:

public class LinkedIntList {

private ListNode front; // null for an empty list

...

}

**Write answer here**

public void set(int index, int value) {

}

**Exercise 16-5**

Write a method isSorted that returns true if the list is in sorted (nondecreasing) order and returns false otherwise. An empty list is considered to be sorted. Assume that you are adding this method to the LinkedIntList class as defined above.

**Write answer here (with method heading)**