

Linked Lists

File **IntList.java** contains definitions for a linked list of integers. The class contains an inner class **IntNode**, which holds information for a single node in the list (a node has a value and a reference to the next node) and the following **IntList** methods:

```
public IntList() -- constructor; creates an empty list of integers

public void addToFront(int val) -- takes an integer and puts it on
the front of the list

public void addToEnd(int val) -- takes an integer and puts it on
the end of the list

public void removeFirst() -- removes the first value from the list

public void print() -- prints the elements in the list from first
to last
```

File **IntListTest.java** contains a driver that allows you to experiment with these methods. Save both of these files to your directory, compile and run **IntListTest**, and run it to see how it works. Then add the following methods to the **IntList** class. For each, add an option to the driver to test it.

```
public int length() -- returns the number of elements in the list

public String toString() -- returns a String containing the print
value of the list.
```