

Your Name: _____

CS 1316 Recitation Quiz 1

10 Points

1. You have a linked list class that uses Node objects as follows. Your job, is to create the code for a method called circleList. This method must “circle” the linked list, by which we mean it should make the last node of the list, point to the first node in the list, thereby forming the list into a circle. The main method in LLClass generates one possible linked list, but your circle list method must work with any arbitrary long list. **Write your answer on the back of this sheet of paper.**

```
public class MyNode {
    public MyNode next;
    public MyNode() {
        next = null;
    }

    public void setNext( MyNode n) {
        this.next = n;
    }
    public MyNode getNext() {
        return this.next;
    }
} // End class MyNode

public class LLClass {

    MyNode head;

    public LLClass(MyNode n) {
        head = n;
    }

    public void circleList(){
        // YOUR CODE GOES HERE!
    }

    // Testing code to test the LLClass:
    public static void main(String[] args) {
        MyNode n1 = new MyNode();
        LLClass ll = new LLClass(n1);
        MyNode n2 = new MyNode();
        n1.setNext(n2);
        ll.circleList();
    } // end main
} // end class LLClass
```

Sample Solution:

```
public void circleList(){
    MyNode end = head;

    if (end == null) // No list to circle!
        return;

    // Find the "end" of the list.
    while(end.getNext() != null) {
        end = end.getNext();
    }

    // Point the end at the head!
    end.setNext(head);

}
```

Grading Criteria:

- +2 points for putting your name on the paper
- +1 points for NOT trying to circle an empty linked list.
- +4 points for traversing the list to find the end.
- +3 points for correctly making the last node point at the head node.