Name:

Other students in group work:

Course: CS 355

Semester: Fall 2012

Assignment Number: 2

Assignment Type: Homework 2

Assignment Description: Implement LinkedList class as specified, provide appropriate test cases, answer
                                 analysis questions

Assignment Due Date: Tuesday, August 28, 2012 (precisely at 12:30 p.m.)

To Be Included in Portfolio: YES

Total Grade:
        Coding Requirements Grade (60 possible), Test cases Grade (20 possible), Analysis Grade (20 possible)

Implement the Linked List class as specified in class. Create test cases to ensure the Linked List works. After
completing the work, answer the Analysis questions.

Coding Requirements:

1. _____Node class complete
    a. ____3 Node Constructors
2. _____Linked List class complete
    a. ____Linked List constructor
    b. ____Insert at front
    c. ____Insert at end
    d. ____Remove from front
    e. ____Remove from end
    f. ____insertion operator
3. _____Create the following operations as friend functions:
    a. operator *
    b. operator /
    c. operator << (optional, may implement as method called print)
    d. operator >> (optional)
4. _____Create a driver program to thoroughly test class.
5. _____The class header should be in Fraction.h, the class implementation should be in Fraction.cpp, and the
    main function and helper routines should be in driver.cpp.

Test Case Requirements Met: Analysis Requirements Met:
____ test cases I required are met   ____ Clear and correct communication
____ new test cases are added to show accuracy   ____ Reasonable/correct answers and justifications

Name:

Course: CS 355

Semester: Fall 2012

Assignment Number: 2

Assignment Type: Homework 2 – Test Cases

Assignment Description: Complete the Test Cases below. If a test case fails, modify code and test again. Copy and paste table for subsequent tests until the code is correct. Add more test cases to ensure multiple possibilities are checked. Also, check Remove routines and constructors.

Assignment Due Date: Tuesday, August 28, 2012 (precisely at 12:30 p.m.)

To Be Included in Portfolio: YES

Test Case 1

Date/Time:	Expected Result	Actual Result	Action needed (Yes/No)
Insert at Front(13)	13		
Insert at Front (20)	20 13		
Insert at Front (18)	18 20 13		
Insert at Back(40)	18 20 13 40		

Test Case 2

Date/Time:	Expected Result	Actual Result	Action needed (Yes/No)
Insert at Back(13)	13		
Insert at Back (20)	13 20		
Insert at Back (18)	13 20 18		
Insert at Front(40)	40 13 20 18		

Question 1: What are the implications for not overloading the assignment operator in this class?

Question 2: Based upon Question 1, what other methods should be written for this type of class and why?

Question 3: Other than methods implemented for the purpose of the clean copying and removal of dynamic data, what other methods might you implement for this class? Give the prototypes for two and briefly describe their purpose and how they would work.