Programming Assignment 1 (Big Integer)

Test Cases

parse (15 pts)

Test	Input	Points
1	0	1
2	-000000	1
3	000000000000000000000000000000000000000	1
4	75412367876599776552	2
5	-000053675410980088654345123	2
6	+123451234512345123451234577	2
7	-123451234512345123451234577	2
8	123451234512345123451234577	2
9	123+566529865762110980765640012	2

(2-point penalty if linked list was correct but either negative or numDigits was not, in one or more test cases.)

add (35 pts)

Test	Inputs	Points
1	0 + 0	1
2	0 + 1	1
3	1 + 9	2
4	9 + -8	2
5	6575677652344321000111 + 65239124	3
6	-6575677652344321000111 + -65239124	4
7	6575677652344321000111 + -65239124	3
8	-6575677652344321000111888999222444 + 65239124	4
9	123456789123456789123456789 + - 123456789123456789123456788	5
10	987654321098765432101234 + 98765432109876543210567	5
11	123456789123456789123456789 + - 122446688113355779022446688	5

(3-point penalty if linked list was correct but either negative or numDigits was not, in one or more test cases.)

multiply (30 pts)

Test	Inputs	Points
1	0 * 0	1
2	1 * 0	1
3	-10 * -20	2
4	6575677652344321000111 * 65239124	5
5	-10657000001000010000 * -65239124	6
6	-4329802567 * 96010789107610065558	5
7	-1011010101010101010101010 * - 2001010	5
6	1 * 9999999999999999999999999	5

(3-point penalty if linked list was correct but either negative or numDigits was not, in one or more test cases.)