

# Programming Assignment 1 (Big Integer)

## Test Cases

### parse (10 pts)

Test	Input	Points
1	75412367876599776552	1
2	00000000000000000000000000000001	1
3	-0053675410980088654345123	2
4	+123451234512345123451234577	2
5	-123451234512345123451234577	2
6	--123451234512345123451234577	1
7	123+566529865762110980765640012	1

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

### add (30 pts)

Test	Inputs	Points
1	1 + 9	3
2	9 + -8	3
3	6575677652344321000111 + 236579	3
4	-6575677652344321000111 + -236579	3
5	6575677652344321000111 + -236579	3
6	-6575677652344321000111 + 236579	3
7	123456789123456789123456789 + -123456789123456789123456788	4
8	98765432109876543210 + 98765432109876543210	4
9	123456789123456789123456789 + -122446688113355779022446688	4

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

### multiply (25 pts)

Test	Inputs	Points
1	6575677652344321000111 * 236579	5
1	-10657000001000010000 * -236579	5
1	-432980 * 96010789107610065558	5
1	-1011010101010101010101010 * -200000	5
1	1 * 9999999999999999999999999999999	5

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