Solution to CSE143X Section #11 Problems

1.

Method Call	Value Returned
mystery1(6, 13)	6
mystery1(14, 10)	4
mystery1(37, 10)	7
mystery1(8, 2)	0
mystery1(50, 7)	1

2.

Method Call	Output Produced
mystery2(1)	1
mystery2(4)	1, 2, 4
mystery2(16)	1, 2, 4, 8, 16
mystery2(30)	1, 3, 7, 15, 30
mystery2(100)	1, 3, 6, 12, 25, 50, 100

3.

Method Call	Value Returned
mystery3(6)	6
mystery3(17)	8
mystery3(259)	7
mystery3(977)	5
mystery3(-479)	-2

4.

Method Call	Value Returned
mystery4(8)	8
mystery4(74)	11
mystery4(-52)	7
mystery4(3052)	10
mystery4(82534)	22

5.

Method Call	Value Returned
mystery5(5, 7)	57
mystery5(12, 9)	1029
mystery5(-7, 4)	-74
mystery5(-23, -48)	2438
mystery5(128, 343)	132483

6.

Method Call	Output Produced
mystery6(4, 1)	4
mystery6(4, 2)	8, 4, 8
mystery6(8, 2)	16, 8, 16
mystery6(4, 3)	12, 8, 4, 8, 12
mystery6(3, 4)	12, 9, 6, 3, 6, 9, 12

7.

Method Call	Output Produced
mystery7(0)	*
mystery7(1)	[*]
mystery7(2)	([*])
mystery7(4)	([([*])])
mystery7(5)	[([([*])])]

8.

Method Call	Output Produced
mystery8(113)	113
mystery8(70)	140, 70
mystery8(42)	168, 84, 42
mystery8(30)	120, 60, 30
mystery8(10)	160, 80, 40, 20, 10

9.

Method Call	Output Produced
mystery9(7);	7
mystery9(38);	838
mystery9(194);	49194
mystery9(782);	28782
mystery9(3842);	2483842

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Method Call	Output Produced
mystery10(5)	+*
mystery10(15)	++**
mystery10(304)	+++*--
mystery10(9247)	++++*--*
mystery10(43269)	+++++-*--*

11.

List before	List after
[1, 2, 3]	[0, 3, 2, 1]
[-1, -2, -3]	[0, 3, 2, 1]
[5, 0, 0, 4, -3, -2, 7, 0]	[0, 7, 2, 3, 4, 5]
[2, 4, -6, -8, 0, 10, 0, -12]	[0, 12, 10, 8, 6, 4, 2]
[0, 3, -2, 4, 0, 15]	[0, 15, 4, 2, 3]