

Solution to CSE143X Section #10 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

10	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]