

# Task-11

a1 = location 1

init()			method A		
temp	sum	y	m	n	x
4	1	2	1	1	0
4-2=2	4+3=7	4-2=2			0+2+1=3
2+1=3	7+3+5=15	2+1+2=5			

b1 = location 2

Super						Child					
init			method A			init			method B		
temp	sum	y	m	n	x	sum	x	y	m	n	y
4	1	2	1	2	0	2	1	2+3=5			
4-2=2	4+3=7	4-2=2			0+2+2=4	3+2+2=7		5+1+1=7			
2-1=1						7+4+7=18					
1+1=2											

b2 = location 3

Super						Child					
init			method A			init			method B		
temp	sum	y	m	n	x	sum	x	b	m	n	y
4	1	2	6	2	0	2	1	location 2	3	2	0
4-2=2	4+3=7	4-2=2			0+2+2=4	7	1				0
2+1=3	<del>7+4+10=21</del>	2+6+2=10				7+4+10=21	2+2+2=6				0+2=2
						6+2+2=10					

## Output

x	y	sum
3	5	15
4	7	18
4	10	21
6	2	29

# Task 12

classA

a1 = location 1

temp	init		method A		
4	sum	y	m	n	x
4-2=2	0	0			
2-2=0	4+1=5	4-2=2			
0-2=-2					
-2-2=-4					
-4+1=-3					
-3+1=-2					
-2+1=-1					

classB

b1 = location 2

Super						Child				
init		method A				init		method B		
sum	y	m	n	x		sum	y	m	n	y
0	0	1	3	0		0	0+3=3	2	3	0
3+2-4=1	0	1	2	0+1+3=4		3+0+2=5	3+1-4=0			0+3=3
4+2-2=-4	2+1=3			0		5+4+0=9	0+1-3=-2			
				0+1+2=3		1+3+9=13				
						13+3-2=14				

b2 = location 3

Super					Child				
init		method A			init		method B		
sum	y	m	n	x	b	sum	m	n	y
0	0	-4	-4	0	location 2	0	3	2	0
-2+1=-1	-2-2=-4			0+1-4=-3		5			0-4=-4
						5-3-10=-8			
						-4-4-8=-16			

Output

x	y	sum
4	0	9
1	3	13
3	-2	14
-3	-10	-8
-4	-4	-16

y
-4-4-2=-10



### Task 13 (continued)

$x = \text{location 4}$
index = 0
23
$23 + 1 = 24$
$5 + 2 = 7$
$7 + 1 = 8$
$5 + 2 = 7$

$y = \text{location 5}$
index = 0
0
$0 + 1 = 1$
$4 + 2 = 6$

Output		
$x$	$y$	Sum
26	-2	5
3	-10	4
-5	6	5
10	-4	5



# Task 14

class A

a1 = location 1

temp	init		method A			get-A-sum	update-A-y
	sum	y	m	n	x		
7	0	0	2	location 4	4		
7-3 = 4	7+2 = 9	7-1 = 6	3	location 4	4+3+33 = 40		
4-3 = 1		6+2-4 = 4			4		
1-2 = -1		4+3+0 = 7			4+3+12 = 19		
-1-3 = -4							
-4+2 = -2							
-2+2 = 0							
0+2 = 2							

b1 = location 2

Class B	Super					Child					
x	init		method A			init			method B		
2	sum	y	m	n	x	sum	y	b	m	n	y
4+1+2=7	0	0				2	1+1=2	None			
7+7=14	4+2=6	4-1=3									
0+4-2-3=-1											

b2 = location 3

super					Child				
init		method A			init		method B		
sum	y	m	n	x	sum	b	m	n	y
0	0	-1	location 5	4	2	location 2	2	3	location 5
1+2 = 1	-1-1 = -2			4+3+1 = 8	2+2 = 4				
	0-2+2 = 0				-1+6+4 = 9				
	0-1-2 = -3								

$x = \text{location 4}$
index = 0
32
$32 + 1 = 33$
$9 + 2 = 11$
$11 + 1 = 12$
$9 + 2 = 11$

$y = \text{location 5}$
index = 0
0
$0 + 1 = 1$
$4 + 2 = 6$

Output		
$x$	$y$	sum
40	4	9
8	-3	4
-1	6	9
19	7	9