Elevator Arithmetic

NAME _____

Part One – Interpreting the Elevator

Fill in the missing cells in the table to express picture as an integer or the integer as a picture.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ELEVATOR							
VALUE						-3	5

Part Two - Traveling in the Elevator

Fill in the missing cells in the table to express the scenario as an expression, the movement(s) it describes and then the simplified value.

	(1)	(2)	(3)	(4)	(5)
ELEVATOR					
MOVEMENT	Start at ____ and go up ___				
EXPRESSION	2 + 3				
VALUE					

Part Three – Movement from the Expression

From the expression given, complete the table by sketching the elevator and the movement, describing the movement in words, and writing in the value.

	(1)	(2)	(3)	(4)	(5)
ELEVATOR	5 4 3 2 1 0 -1 -2 -3 -4 -5	5 4 3 2 1 0 -1 -2 -3 -4 -5	5 4 3 2 1 0 -1 -2 -3 -4 -5	5 4 3 2 1 0 -1 -2 -3 -4 -5	5 4 3 2 1 0 -1 -2 -3 -4 -5
MOVEMENT	Start at ____ & go down ___				
EXPRESSION	$5 - 8$	$-4 + 3$	$-5 + 5$	$3 - 7$	$-3 + 7$
VALUE					

Part Four – Using the Movement to determine Value

From the movement given, write the expression and the value. You are welcome to sketch the elevator movement or use manipulatives to determine the value.

	(1)	(2)	(3)	(4)	(5)
MOVEMENT	Start at 8 and go down 3	Start at 5 and go down 7	Start 3 floors underground and go up 9	Start __ floors underground and go down __	
EXPRESSION				-2-5	-8+6
VALUE					

Part Five- Finding the Value from the Expression

Determine the value of the expression, by deciding what movement to use on the elevator, and then write your answer in the table. For the last set of examples, just write your answer next to the expression.

	(1)	(2)	(3)	(4)	(5)
EXPRESSION	9-5	3-7	-3+1	-2-5	-8+6
VALUE					

6. $10 - 4 =$ _____

7. $-5 + 2 =$ _____

8. $3 - 9 =$ ____

9. $-5 - 5 =$ ____

10. $-6 + 7 =$ ____

11. $-8 + 6 =$ ____

12. $3 - 10 =$ ____

13. $-2 - 1 =$ ____

14. $-1 + 11 =$ ____