AGS 1 Name: _____ Period: _____ Date: _____

Assignment 1.3 – Sequences

Fill in the table, then write a sentence explaining how you figured out the values to put in each cell.

1. You run a business making birdhouses. You spend $600 to start your business, and it costs you $5.00 to make each bird house.

# of birdhouses	0	1	2	3	4	5	6
Total cost to build							

Common Difference: Explanation:

2. You make a $15 payment on your loan of $500 at the end of each month.

# of months	1	2	3	4	5	6	7
Amount of money owed							

Common Difference: Explanation:

3. You deposit $10 in a savings account at the end of each week.

# of weeks	1	2	3	4	5	6	7
Amount of money saved							

Common Difference: Explanation:

4. You are saving for a bike and can save $10 per week. You have $25 when you begin saving.

# of weeks	0	1	2	3	4	5	6
Amount of money saved							

Common Difference: Explanation:

Refresh Your Memory

5. Evaluate each expression, given that $\boldsymbol{x = -2, a = 4, b = -3}$, and $\boldsymbol{c = 7}$

a. $(a-2)^3 + (b+1)$

b. $2 + 3(c-4)^2 - 1$

c. $2[c + a(x+4)]^2 \div 50$

6. Determine the y-value of each ordered pair in the table based on the given x-value

a. $y = 6x - 15$

x	y
-8	
-1	
5	

b. $y = -4x + 9$

x	y
-5	
2	
4	

c. $y = 2x - 1$

x	y
-4	
0	
7	

d. $y = -x + 7$

x	y
-9	
1	
5	