Name: Selected Answers Period: _____

Score: _____/_____ _____%

HW 3-6 HONORS: Finding Missing Terms

Each of the tables below represents an arithmetic sequence. Find the missing terms in the sequence, showing your method.

1.

x	1	2	3
y	3	7.5	12

2.

x	*y*
1	2
2	
3	
4	26

3.

x	*y*
1	24
2	15
3	6
4	-3

4.

x	*y*
1	16
2	
3	
4	4
5	

Determine whether the sequence is Arithmetic, Geometric or Neither.

Then determine the recursive and explicit equations for each (if the sequence is not arithmetic or geometric, try your best).

5. 5, 9, 13, 17, … This sequence is: (Arithmetic) Geometric Neither

Recursive Equation: $f(x)=f(x-1)+4$; $f(1)=5$ Explicit Equation: $f(x)=4x+1$

6. 60, 30, 0, -30, … This sequence is: Arithmetic Geometric Neither

Recursive Equation: _____ Explicit Equation: _____

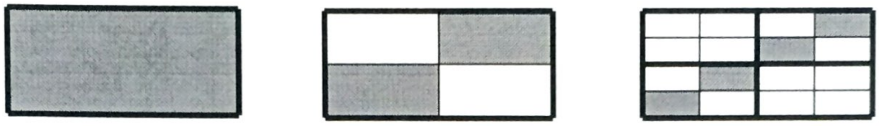
7. 60, 30, 15, $\frac{15}{2}$, … This sequence is: Arithmetic (Geometric) Neither

Recursive Equation: $f(x)=f(x-1)\cdot\frac{1}{2}$; $f(1)=60$ Explicit Equation: $f(x)=60\left(\frac{1}{2}\right)^{x-1}$

Determine whether the sequence is Arithmetic, Geometric or Neither.

Then determine the recursive and explicit equations for each (if the sequence is not arithmetic or geometric, try your best).

8.



(The number of black tiles above) This sequence is: Arithmetic Geometric Neither

Recursive Equation: _____ Explicit Equation: _____

9. 4, 7, 12, 19, … This sequence is: Arithmetic Geometric Neither

Recursive Equation: _____ Explicit Equation: _____

Each of the tables below represents a *geometric* sequence. Find the missing terms in the sequence, showing your method.

10.

x	1	2	3
y	3		12

11.

x	*y*
1	2
2	6
3	18
4	54

12.

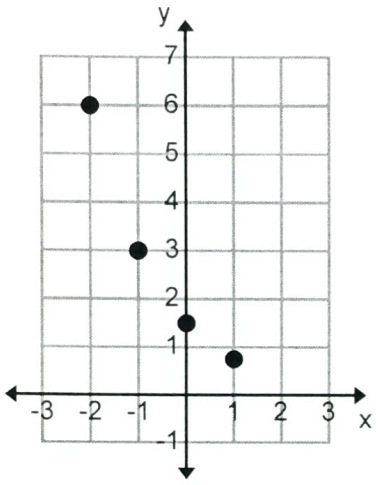
x	*y*
1	5
2	
3	20
4	

13.

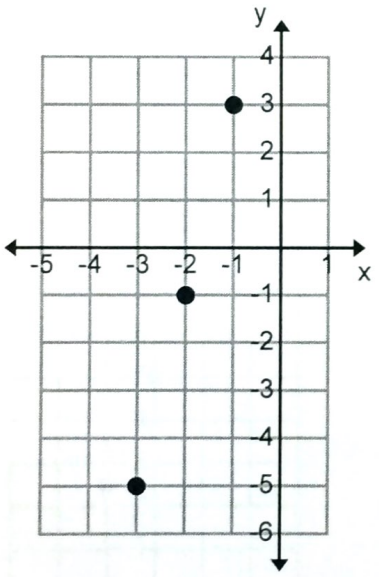
x	*y*
1	4
2	12
3	36
4	108
5	324

Determine whether each graph represents an Arithmetic of Geometric sequence. Then, find the recursive and explicit equation.

14.



15.



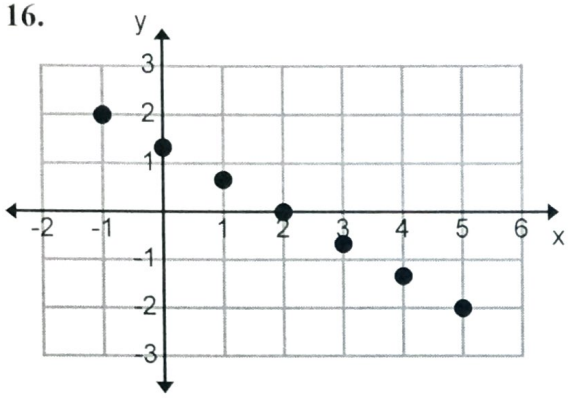
Arithmetic

$f(x) = f(x-1) + 4$; $f(-3) = -5$

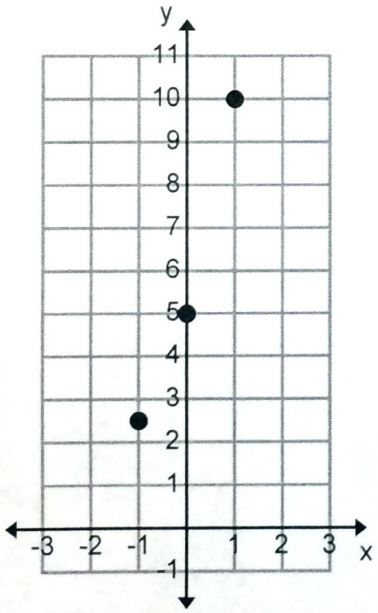
$f(x) = 4x + 7$

Determine whether each graph represents an Arithmetic of Geometric sequence. Then, find the recursive and explicit equation.

16.



17.



Geometric

$f(x) = f(x-1) \cdot 2$; $f(0) = 5$

$f(x) = 5 \cdot 2^x$