AGS 1 Name: _____ Period: _____ Date: _____

Assignment 1.4 – Sequences

Use the given information to decide which equation will be the easiest to use to find the indicated value. Find the value and explain your choice.

1. Explicit Equation: $y = 3x + 7$
Recursive: $new = previous\ term + 3$

Find the value of the 4th term:

term #	1	2	3	4
value	10	13	16	

Explanation:

2. Explicit Equation: $y = 3x + 7$
Recursive: $new = previous\ term + 3$

Find the value of the 50th term:

term #	1	2	…	50
value	10	13	…	

Explanation:

3. Explicit Equation: $y = 10x - 2$
Recursive: $new = previous\ term + 10$

Find the value of the 9th term:

term #	1	2	…	8	9
value	8	18	…	78	

Explanation:

4. Explicit Equation: $y = 10x - 2$
Recursive: $new = previous\ term + 10$

Find the value of the 4th term:

term #	1	2	…	8	…	20
value	8	18	…	78	…	

Explanation:

5. The value of the 4th term is 0
The sequence is decreasing by 2 at each step.

Explicit Equation: $y = -2x + 8$
Recursive: $new = previous\ term - 2$

Find the value of the 5th term: _____
Explanation:

6. The value of the 4th term is 0
The sequence is decreasing by 2 at each step.

Explicit Equation: $y = -2x + 8$
Recursive: $new = previous\ term - 2$

Find the value of the 8th term: _____
Explanation:

Refresh Your Memory

Reading a table and using function notation.
a) Use the given table to identify the indicated value for *n*.
b) Then using the value for *n* that you determined in part a, use the table to find the indicated value for part b.

n	1	2	3	4	5	6	7	8	9	10
$f(n)$	-8	-3	2	7	12	17	22	27	32	37

7. a) When $f(n) = 12$, what is the value in n?

   b) What is the value of $f(n-1)$?

8. a) When $f(n) = 17$, what is the value in n?

   b) What is the value of $f(n-1)$?

9. a) When $f(n) = 32$, what is the value in n?

   b) What is the value of $f(n+1)$?

10. a) When $f(n) = 2$, what is the value in n?

    b) What is the value of $f(n+3)$?

11. a) When $f(n) = 27$, what is the value in n?

    b) What is the value of $f(n-6)$?

12. a) When $f(n) = -8$, what is the value in n?

    b) What is the value of $f(n+9)$?