

Name: _____ Date: _____ Period: _____ Score: _____

Unit 2 Day 3 – Explicit Formulas for Sequences Assignment

Remember these sequences from our first assignment? You have already written recursive formulas for each one. Now **write an explicit formula for each sequence.**



1. 55, 57, 59, 61, . . .

2. 4, 12, 36, 108, . . .

3. 16, 8, 4, 2, . . .

4. -20, -26, -32, -38, . . .

5.

Term	1st	2nd	3rd	4th	5th
Value	66	50	34	18	2

6.

Term	1st	2nd	3rd	4th	5th
Value	160	80	40	20	10

7.

Term #	1	2	3	4	5	xth term
Value	4	12	36	108	324	

Hint: the explicit formula IS the xth term.

8. Write the first five terms of the sequence whose explicit formula is $f(x) = 5(3)^{x-1}$

9. Write the first five terms of the sequence whose explicit formula is $f(x) = -47 + 8(x - 1)$

10. Write the first five terms of the sequence whose recursive formula is $f(1) = -47$; $f(x) = f(x - 1) + 8$

11. Write the first five terms of the sequence whose recursive formula is $f(1) = 9$; $f(x) = f(x - 1) \cdot 2$
12. Write the first five terms of the sequence whose explicit formula is $f(x) = 9(2)^{x-1}$
13. Write the first five terms of the sequence whose explicit formula is $f(x) = 9 + 2(x - 1)$
14. Write the first five terms of the sequence whose explicit formula is $f(x) = -6(3)^{x-1}$
15. Write the first five terms of the sequence whose recursive formula is $f(2) = -5$; $f(x) = f(x - 1) + 5$
16. Write the first five terms of the sequence whose explicit formula is $f(x) = -6 + 3(x - 1)$
17. Which sequences in this assignment (front and back) are arithmetic? (write the question numbers)
18. Which sequences in this assignment (front and back) are geometric? (write the question numbers)

Smart is something you become, not something you are born with.

Evaluate if $a = 2$, $b = 3$, $c = -1$

19. $4(3)^{a-1}$

20. $7(2)^{b-1}$

21. ab^c

22. $a^{(4-b)}$