

Algebra 2 Worksheet #1 Unit 9 page 1 _____

Use the given formula to write the first five terms of each of the following sequences.

1. $a_1 = 5$; $a_{n+1} = a_n + 3$ _____

2. $a_1 = -3$; $a_{n+1} = a_n + 0.5$ _____

3. $a_1 = 1$; $a_{n+1} = 2a_n$ _____

4. $a_1 = 8$; $a_{n+1} = 0.5a_n$ _____

5. $a_n = 3n + 5$ _____

6. $a_n = 2n - 1$ _____

7. $a_n = 2^n$ _____

8. $a_n = 4(0.5^n)$ _____

9. $a_n = n^2$ _____

10. $a_n = 0.5n(n+1)$ _____

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Write a recursive formula for each of the following sequences.

11. 3, 6, 9, 12, ...

12. 7, 11, 15, 19, ...

13. 10, 9.5, 9, 8.5, 8, ...

14. 2, 4, 8, 16, 32, ...

15. 1, -3, 9, -27, 81, ...

Write an explicit formula for each of the following sequences.

16. 7, 14, 21, 28, ...

17. 7, 11, 15, 19, ...

18. 2, 4, 8, 16, 32, ...

19. 1, -3, 9, -27, 81, ...

20. 2, 5, 10, 17, 26, 37, 50, ...
