General Algebra 2 Worksheet #2 Unit 10 page 1 _____

For each of the following sequences

a. write the next 3 terms of the sequence;
b. determine whether the sequence is arithmetic, geometric, or neither; and
c. write an explicit formula for the sequence;

1. 3, 6, 9, 12, 15, ...

a. _____ **b.** _____ **c.** _____

2. 3, 6, 12, 24, 48, ...

a. _____ **b.** _____ **c.** _____

3. 3, 6, 11, 18, 27, ...

a. _____ **b.** _____ **c.** _____

4. 64, -32, 16, -8, 4, ...

a. _____ **b.** _____ **c.** _____

5. 1, 8, 27, 64, 125, ...

a. _____ **b.** _____ **c.** _____

6. 5, 5.5, 6, 6.5, 7, ...

a. _____ **b.** _____ **c.** _____

For each of the following sequences

a. write the next 3 terms of the sequence;
b. determine whether the sequence is arithmetic or geometric; and
c. write a recursive formula for the sequence;

7. 5, 10, 20, 40, ...

a. _____ **b.** _____ **c.** _____

8. 5, 10, 15, 20, ...

a. _____ **b.** _____ **c.** _____

9. 20, 18, 16, 14, ...

a. _____ **b.** _____ **c.** _____

10. 40, 20, 10, 5, ...

a. _____ **b.** _____ **c.** _____

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For each of the following sequences

a. write the first 5 terms of the sequence; and

b. determine whether the sequence is arithmetic, geometric or neither.

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

a. _____ **b.** _____

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

a. _____ **b.** _____

13. $a_1 = 3$; $a_{n+1} = -3a_n + 10$

a. _____ **b.** _____

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

a. _____ **b.** _____

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

a. _____ **b.** _____

16. $a_n = 2n$

a. _____ **b.** _____

17. $a_n = n^2$

a. _____ **b.** _____

18. $a_n = 2(3)^{(n-1)}$

a. _____ **b.** _____

19. $a_n = n^3 - 1$

a. _____ **b.** _____

20. $a_n = -2n + 5$

a. _____ **b.** _____