

Algebra II Worksheet #2 Unit 9 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. _____

Algebra II Worksheet #2 Unit 9 page 2

For each of the following sequences

- write the first 5 terms of the sequence; and
- 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. $a_1 = 3$; $a_{n+1} = -0.5a_n$

a. _____

b. _____

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

a. _____

b. _____

16. $a_n = 2n$

a. _____

b. _____

17. $a_n = n^2$

a. _____

b. _____

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

a. _____

b. _____

19. $a_n = n^3 - 1$

a. _____

b. _____

20. $a_n = -2n + 5$

a. _____

b. _____