Algebra II – **Unit 10 Review** Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

“We like good quotes.” ELKS

1. Identify the following as arithmetic, geometric, or neither. Also find the next 2 terms.

a)  Circle one: Arithmetic Geometric Neither

b) 3, -6, 9, -12, \_\_\_\_\_\_\_ , \_\_\_\_\_\_\_ Circle one: Arithmetic Geometric Neither

c) 729, 243, 81, 27, \_\_\_\_\_\_\_ , \_\_\_\_\_\_\_ Circle one: Arithmetic Geometric Neither

2. Write the formula for the following sequence.

-2, 4, 10, 16, ….

3. Find the specified term of the arithmetic sequence.

20, 17, 14, … ; t20

4. Find the position, n, of the underlined term.

-5, .5, 6, 11.5, …, 127

5. Insert three arithmetic means between 12 and 2.

6. Write the formula for the following sequence.

-6, -12, -24, …

7. Find the specified term of the geometric sequence.

, , 1, -3, …; t15

8. Find the position, n, of the underlined term.

4, 16, 64, 256, …, 16777216

9. Insert three geometric means between 81 and 1.

10. Write the series in expanded form, and find its sum.

1. 
2. 

11. Rewrite the series into sigma notation.

1. 6 + 12 + 24 + … + 98304
2. 5 + 8 + 11 + 14 + …

12. A wealthy mother gives her daughter $5 on her first birthday, $10 on her second birthday, $20 on her third birthday, and $40 on her fourth birthday. If this pattern continues, what will be the gift on her 28th birthday?