Unit 2 HW 22

Name_____ Date_____ Period_____

Simplify.

1. $3(4)^2 + 9$

2. $8(-3)^2 - 80$

3. $4(3)^2 - 5(3) + 12$

4. $-2(-5)^2 + 6(-5) + 31$

5. For each sequence, find the next three terms, and determine if it's arithmetic or geometric.

   a. 65, 75, 85, 95…

   Next 3 terms: _____, _____, _____

   Circle One: Arithmetic Geometric

   b. 3, 6, 12, 24…

   Next 3 terms: _____, _____, _____

   Circle One: Arithmetic Geometric

6. Write the equation of a line:

   a. with a slope of $\frac{2}{3}$ that goes through the point (-6, 2).

   b. that goes through (-2, -3) and (6, -7).

For Problems 7-8

a. Circle if each sequence is arithmetic, geometric, quadratic, or none of these.

b. Write a formula for the sequence

c. Find the seventh and tenth terms in each sequence.

7. $3, 8, 13, 18 \ldots$ Circle One: A G

Formula:

a_7: _____ a_{10}: _____

8. $600, 450, 337.5$ Circle One: A G

Formula:

a_7: _____ a_{10}: _____

9. Solve the system of equations by graphing

$$\begin{cases} 8x - 2y = 12 \\ 2x + 3y = 24 \end{cases}$$