Algebra 1
Unit 6 Worksheet 3

Name:_____

Date:_____

Period:_____

Directions: Please answer the following questions. **Show work!!**

Simplify. Please pay attention to which operation to use.

1. $6x^3(8x^5 - 4x + 2)$

2. $(6y^2 - 4y + 9) - (2y^2 - 8y + 12)$

3. $(x^2 + 5)(x - 9)$

4. $-3a^5 + 11 - 15a^2 - 6 + 14a^2 + 7a$
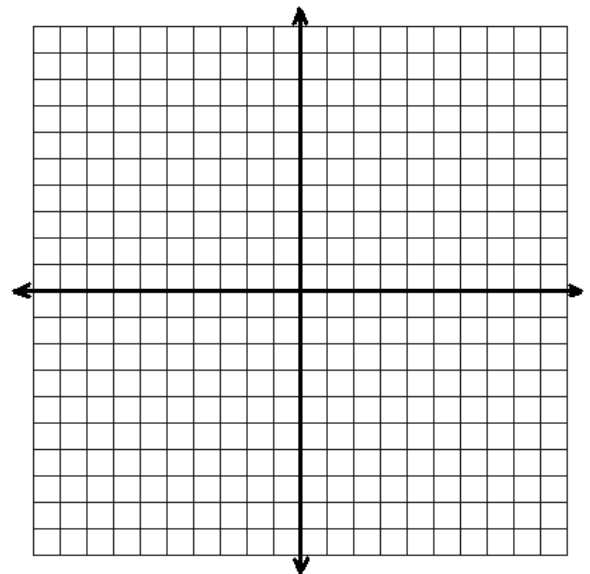
Factor by removing the GCF.

5. $12a^2 + 16a$

6. $10x^4 + 25x$

7. $36m^2 + 9m + 12$
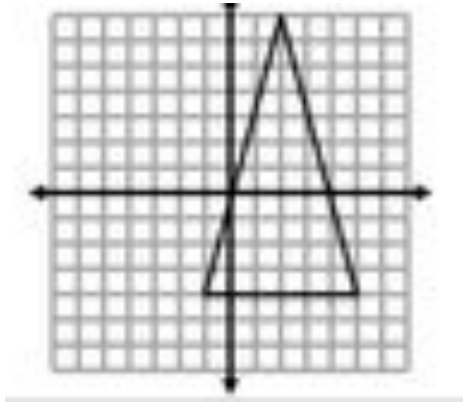
8. $25a^2 + 5$

9. Graph the system of inequalities.
$$\begin{cases} y \le -3x + 4 \\ 4y < x - 8 \end{cases}$$

10. Would (-4,-1) be a solution to the system? Why or why not?
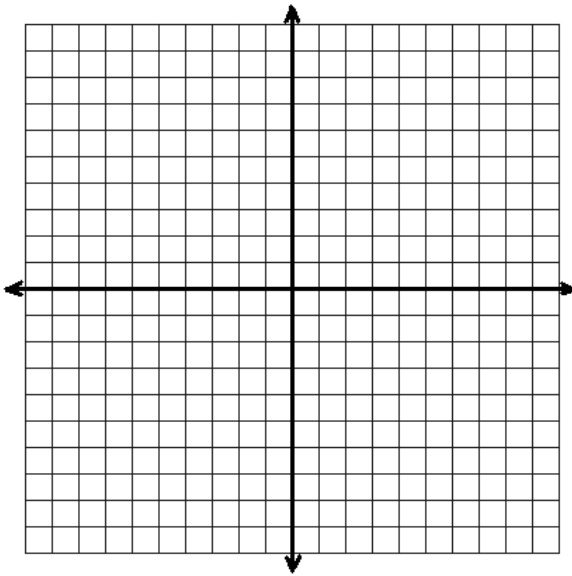
State the domain and range of the following relations.

11.

12. {(3,9), (-2,4), (4,-5), (12, -2), (0, -19)}

Graph.

13. $y = -3x + 7$

14. $y - 2x = -5$