

Name: _____ Mods: _____ Date: _____

Chapter 3 Review Worksheet

Algebra II

Solve each system by substitution.

1.
$$\begin{cases} x - 2y = 3 \\ 3x + y = -5 \end{cases}$$

2.
$$\begin{cases} 14x - 35 = 7y \\ -25 - 6x = 5y \end{cases}$$

3.
$$\begin{cases} -6 = 3x - 6y \\ 4x = 4 + 5y \end{cases}$$

Solve each system by elimination.

4.
$$\begin{cases} x - 2y = 3 \\ 3x + y = -5 \end{cases}$$

5.
$$\begin{cases} x - 2y = 3 \\ 3x + y = -5 \end{cases}$$

6.
$$\begin{cases} 5x - 2y = -19 \\ 2x + 3y = 0 \end{cases}$$

Solve each system by graphing.

7.
$$\begin{cases} y < 4x \\ 3x + y \geq 5 \end{cases}$$

8.
$$\begin{cases} y \leq |x + 2| - 3 \\ y \geq 1 + \frac{1}{4}x \end{cases}$$

9.
$$\begin{cases} 2x + 3y > 6 \\ x \leq -1 \\ y \geq 4 \end{cases}$$

10. For \$7.52, you purchased 8 pens and highlighters from a bookstore. Each highlighter cost \$1.09 and each pen cost \$.69. How many pens did you buy? Create a system to find your answer.

21. You are going to decorate the school for a dance with a total of at least 40 green and gold balloons. There must be a minimum of 25 gold balloons. Write and graph a system of inequalities to model this situation.