

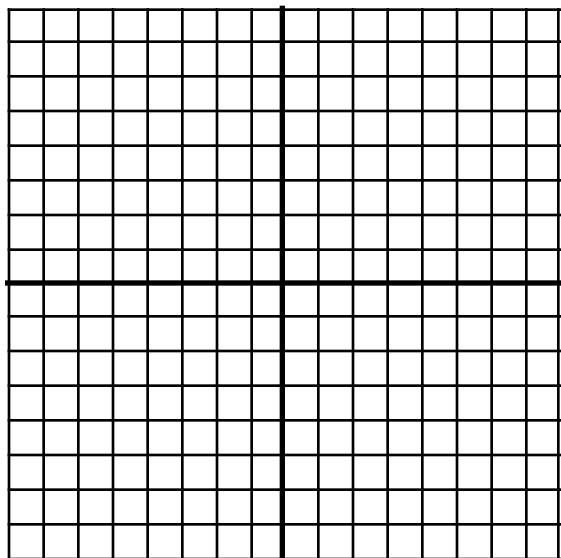
Chapter 4 Review

1. Is $(-2, \frac{3}{4})$ a solution to $\begin{cases} x - 12y = -11 \\ -2x + 8y = 10 \end{cases}$

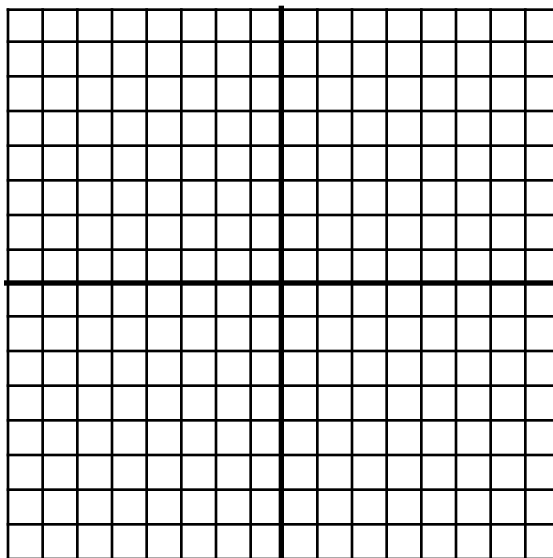
2. Is $(\frac{-1}{2}, \frac{2}{3})$ a solution to $\begin{cases} 2x + 6y = 3 \\ 4x - 6y = -5 \end{cases}$

Solve each system of equations by **graphing**. List your answers as an ordered pair (x, y)

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



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



Solve each System of Equations by **Substitution**

5. $\begin{cases} 2x + 4y = -6 \\ x = 2y - 5 \end{cases}$

6. $\begin{cases} 8x - 4y = 20 \\ y = 2x - 5 \end{cases}$

Solve each system of equations by **elimination**

7.
$$\begin{cases} -4x + 2y = 20 \\ 3x + y = -5 \end{cases}$$

8.
$$\begin{cases} -x + 2y = -5 \\ 2x - 4y = 6 \end{cases}$$

9.
$$\begin{cases} 2x + 5y = -1 \\ 3x + 4y = 2 \end{cases}$$

10.
$$\begin{cases} 3x + 2y = 0 \\ 2x - 3y = -13 \end{cases}$$

11.
$$\begin{cases} 3x - 5y = 11 \\ 2x - 6y = 2 \end{cases}$$

12.
$$\begin{cases} \frac{x}{2} + \frac{y}{6} = -1 \\ \frac{-x}{2} + \frac{y}{3} = \frac{-1}{2} \end{cases}$$

All Ordered Triples are (x , y , w)

$$13. \begin{cases} 3x - y - 3w = -2 \\ 2x + y + 2w = 9 \\ x - 2y + 5w = 19 \end{cases}$$

$$14. \begin{cases} 2x - 3y + w = 2 \\ 5x + y - w = 12 \\ -x - 2y - w = 0 \end{cases}$$

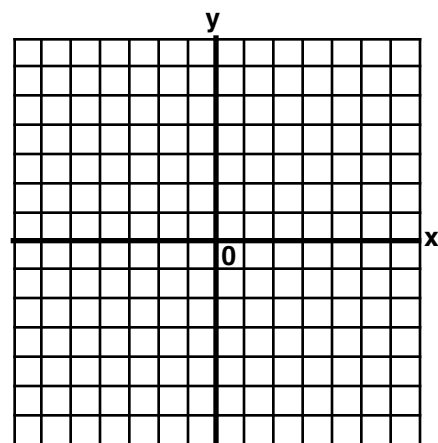
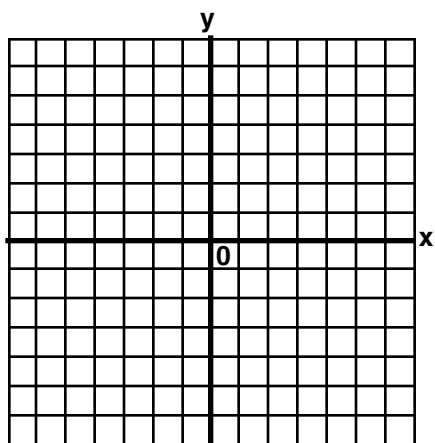
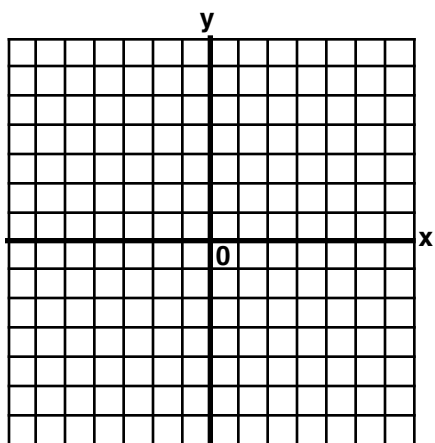
$$15. \begin{cases} -2x - 3y + 3w = -10 \\ 2x + y - 2w = 7 \\ -x - 2y - w = -2 \end{cases}$$

$$16. \begin{cases} 3x - 2y - 4w = 11 \\ 2x + 4y + 2w = 8 \\ -4x - 3y - 3w = -12 \end{cases}$$

17. $y \leq \frac{2}{5}x - 2$
and
 $3x + 2y \leq 4$

18. $y < \frac{-3}{5}x$
and
 $3x - 2y < 4$

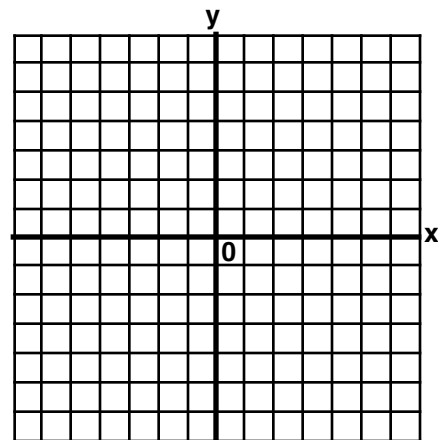
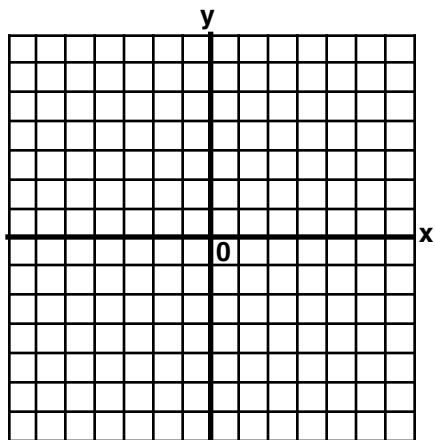
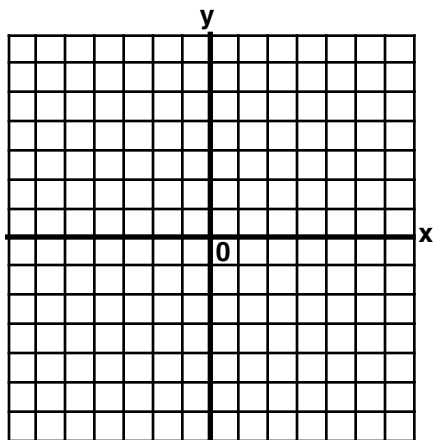
19. $y \geq \frac{-1}{3}x + 2$
and
 $4x - 3y \leq 3$



20. $y \geq 3$
and
 $x \leq 2$

21. $y \leq 3$
and
 $y \geq -2$

22. $\begin{cases} y \leq \frac{2}{3}x - 1 \\ \text{and} \\ y \leq -2x + 3 \\ \text{and} \\ y \geq -4 \end{cases}$



23. An airplane has a total of 170 seats. Find the number of each type of seat if the number of coach seats is 30 less than 3 times the number of first class seats.
24. The weight of the cement in a compound is 10 more than 3 times the weight of the water in the compound. Find the weights of each type of material if the total weight is 102 pounds.
25. The total numbers of nickels and dimes is 26. The number of nickels is 10 less than twice the number of dimes. Find the number of each type of coin.