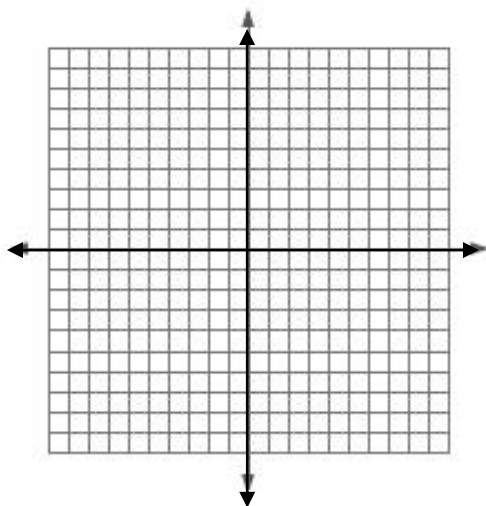


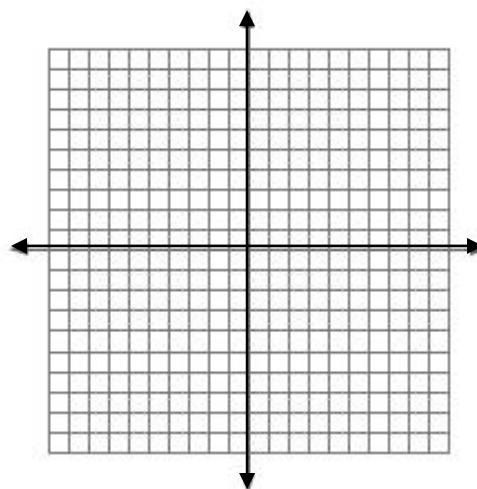
Systems of Equations Review

Solve the linear system by graphing.

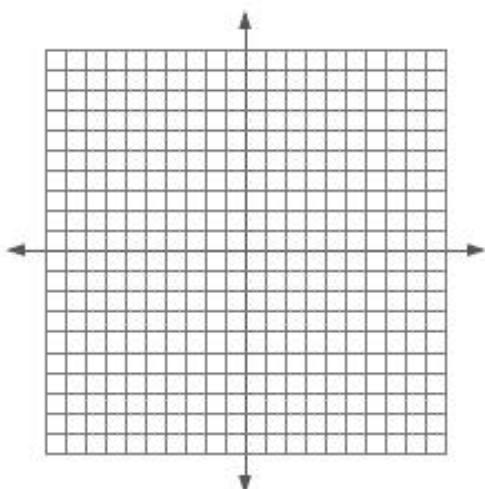
1. a. $x - 4y = 28$
 $2x + y = 2$



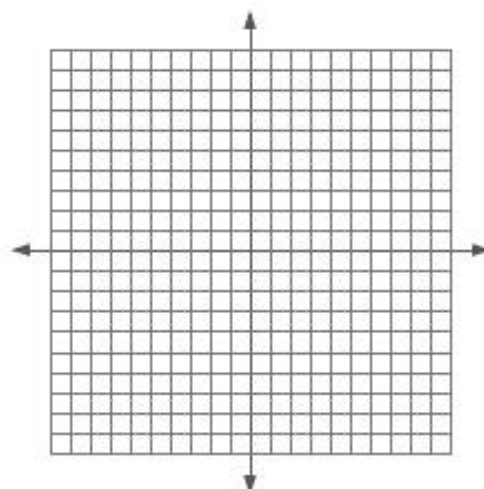
b. $x + y > -5$
 $3x - 4y > -8$
 $x < 3$



c. $y = \frac{-1}{3}x - 3$
 $y = \frac{4}{3}x + 2$



d. $2x + y = -1$
 $4y = -8x - 4$



Solve the linear system using substitution.

2. $y - 5 = x$
 $4x - y = 4$

Solve the linear system using elimination.

$$\begin{aligned} 3. \quad & 4x - 3y = 8 \\ & 5x - 2y = -11 \end{aligned}$$

$$\begin{aligned} 4. \quad & -5x + 3y = 19 \\ & -5x + 7y = 11 \end{aligned}$$

Solve each system by using any method.

$$\begin{aligned} 5. \quad & 5x + 4y = 2 \\ & -5x - 2y = 4 \end{aligned}$$

$$\begin{aligned} 6. \quad & 5x - 8y = 43 \\ & x - 4y = 11 \end{aligned}$$

$$\begin{aligned} 7. \quad & 4x + 3y = -6 \\ & 5x - 6y = -27 \end{aligned}$$

$$\begin{aligned} 8. \quad & 3x - 4y = 9 \\ & 2x + 5y = 6 \end{aligned}$$

$$\begin{aligned} 9. \quad & 3x - 2y = 10 \\ & -6x + 4y = -20 \end{aligned}$$

10.
$$\begin{aligned} 2x + 6y &= 0 \\ 5x - 3y &= -3 \end{aligned}$$

Use any algebraic method to solve the system.

11.
$$\begin{aligned} x - y + 2z &= 4 \\ x - 3z &= 1 \\ 2y - z &= -15 \end{aligned}$$

12.
$$\begin{aligned} x + 2y - z &= 3 \\ x - 3y + z &= -1 \\ -x + y - 3z &= 5 \end{aligned}$$

13. A restaurant charged one customer \$28.20 for 3 small dishes and 5 large dishes and charged another customer \$23.30 for 4 small dishes and 3 large dishes.

What will 2 small and 4 large dishes cost?

14. Bell and Irene together sold 137 tickets for a benefit concert. Irene sold 10 fewer than twice as many as Bell. How many tickets did each girl sell?

16. Mrs. Flips sold 300 cookies for her bake sale. She sold two types of cookies: large chocolate chip and small peanut butter cookies. She charged \$1 for the chocolate chip and 50-cents for the peanut butter cookies and collected \$270 total. How many of each type did she sell?

17. Billy's Restaurant ordered 200 flowers for Mother's Day. They ordered carnations at \$1.50 each, roses at \$5.75 each, and daisies at \$2.60 each. They ordered mostly carnations, and 20 fewer roses than daisies. The total order came to \$589.50. How many of each type of flower was ordered?

18. The Arcadium arcade in Lynchburg, Tennessee uses 3 different colored tokens for their game machines. For \$20 you can purchase any of the following mixtures of tokens: 14 gold, 20 silver, and 24 bronze; OR, 20 gold, 15 silver, and 19 bronze; OR, 30 gold, 5 silver, and 13 bronze. What is the monetary value of each token?