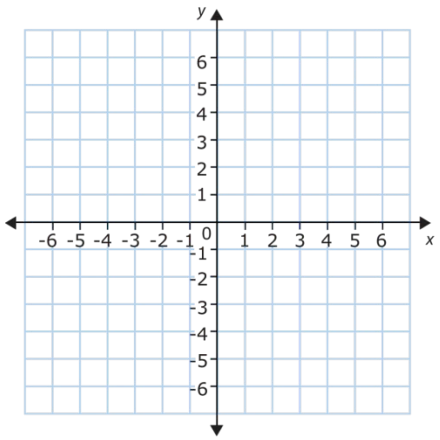
1. Graph the system of linear equations and state the solution.

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



2. Solve the system using substitution.

$$\begin{Bmatrix} 3x + y = 17 \\ -2x - 2y = -22 \end{Bmatrix}$$

3. Tell whether (3, 8) is a solution of

$$\begin{Bmatrix} x - 5y = 5 \\ 3x - 6y = 15 \end{Bmatrix}$$

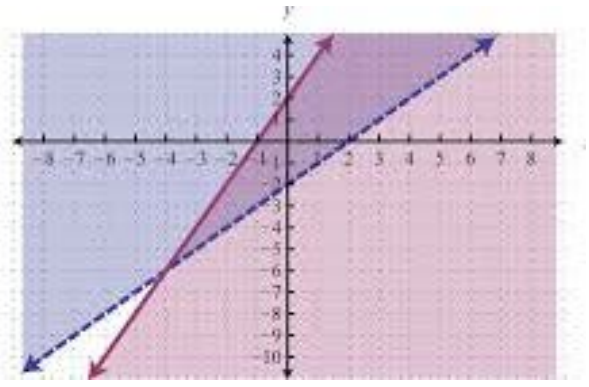
4. Solve the system using elimination. Are you "adding" or "subtracting"?

$$\begin{Bmatrix} 5x + 2y = -14 \\ x - 2y = -10 \end{Bmatrix}$$

5. Solve using elimination. Explain how you chose your first step.

$$\begin{Bmatrix} 8x - 5y = 3 \\ -16x + 2y = -14 \end{Bmatrix}$$

6. Write 3 solutions to the system of linear equalities shown in the graph.



a.

b.

c.

7. Jack's school is selling tickets to the annual talent show. The school sold 25 adult tickets and 10 child tickets for a total of $400 on the first day, and took in $260 on the second day by selling 20 adult ticket and 7 child tickets. Write a linear system to represent the situation?

8. Write a sentence describing the graph of $x > -10$ (vertical/horizontal, solid/dashed, above/below/right/left).

9. Write a sentence describing the graph of $y \leq 12$ (vertical/horizontal, solid/dashed, above/below/right/left).

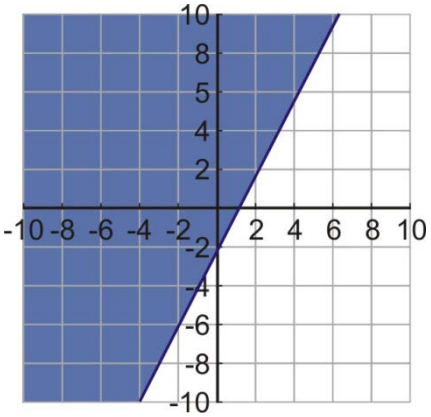
10. How many solutions does the system have? Explain how you know.

$$\begin{Bmatrix} y = \frac{2}{3}x + 6 \\ y = \frac{2}{3}x - 10 \end{Bmatrix}$$

11. How many solutions does the system have? Explain or show your work.

$$\begin{Bmatrix} x + 3y = 6 \\ 2x + 6y = 12 \end{Bmatrix}$$

12. Write the linear inequality to represent the graph below. *(Hint: use the y-int and the slope)*



13. The inequality $x + y \leq 4$ describes the amounts vegetables and fruits Ronda can use to make a smoothie. What are possible combinations?

14. The Lees spent $31 on movie tickets for 2 adults and 3 children. The Smiths spent $26 on movie tickets for 2 adults and 2 children. What are the prices for adult and child movie tickets?

15. What is the solution of the system?