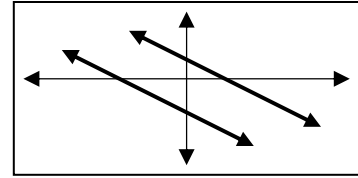


Directions: Do work on another sheet of paper.

- Solve the system of equations by graphing $-2x + y = 3$ and $-3x + y = 6$
- Use the graph to determine if these lines are consistent, inconsistent or dependent.



Solve the systems of equation below by substitution.
If there is not just one answer, explain result.

- $$\begin{aligned} 4x - y &= 17 \\ 3x - 2y &= 14 \end{aligned}$$
- $$\begin{aligned} x - 3y &= -1 \\ 2x - 3y &= 4 \end{aligned}$$

Solve the systems of equation below by elimination.
If there is not just one answer, explain result.

- $$\begin{aligned} 2x + y &= 13 \\ 3x + 2y &= 21 \end{aligned}$$
- $$\begin{aligned} x - 2y &= -2 \\ x - 2y &= 2 \end{aligned}$$

Solve the systems of equation below by the most convenient method.
If there is not just one answer, explain result.

- $$\begin{aligned} 4x + 3 &= -3y \\ -3(x + 7) &= -4y \end{aligned}$$
- $$\begin{aligned} 3x - y &= 1 \\ 6x - 2y &= 2 \end{aligned}$$
- $$\begin{aligned} 0.06x + 0.05y &= 640 \\ x + y &= 12,000 \end{aligned}$$
- $$\begin{aligned} \frac{x}{5} + \frac{y}{6} &= \frac{13}{30} \\ \frac{x}{2} + \frac{2y}{6} &= \frac{2}{3} \end{aligned}$$

Write a system of equations and solve each using algebra to solve.

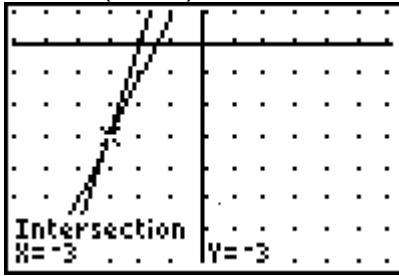
- A negative number is 6 times another negative number. The sum of the two numbers is -77. Write a system and solve for the two numbers.
- Theater tickets cost \$8 for adults and \$5 for children. If 380 tickets were sold and \$2800 was collected. How many type of each of ticket was sold?
- A piggy bank has 54 coins of nickels and dimes. If the bank contains \$4.30, how many nickels and dimes are in the bank?
- The length of a patio is 5 feet more than twice the width. The perimeter is 94 feet. What are the dimensions?

Graph the solutions to the linear inequalities below.

- $x < -2$
- $Y > -3x + 2$
- $5x - 4y \leq 20$

Answers

1. $(-3, -3)$



2. Inconsistent

3. $(4, -1)$

4. $(5, 2)$

5. $(5, 3)$

6. No solution (inconsistent)

7. $(-3, 3)$

8. An infinite number of solutions

9. $(4000, 8000)$

10. $(-2, 5)$

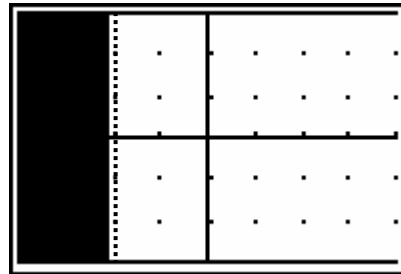
11. $(-11, -66)$

12. $A=300, c=80$

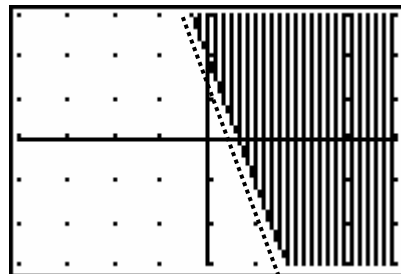
13. 22 nickels and 32 dimes

14. $w=14$ ft, $l=33$ feet

15.



16.



17.

