5E Systems of Equation: More Practice Name: _____ Per:_____

SHOW YOUR WORK FOR FULL CREDIT. NO WORK, NO CREDIT. NO WORK IN PEN.

For each of the situation, **write two equations** and **solve the system** any method to find the price each item.

Clarita and Carlos run a pet sitting company. Clarita is upset with Carlos because he has been buying cat and dog food without recording the price of each type of food in their records. Instead, Carlos has just recorded the total price of each purchase. Carlos is trying to figure out the price of each type of food by reviewing some recent purchases. Help him figure out the cost of items. They subtracted the tax for the problems below.

1. One week Carlos bought 5 bags of Tiny Tidbits and 4 bags of Fabulous Flakes for $43.00. The next week he bought 5 bags of Tiny Tidbits and 6 bags of Fabulous Flakes for $54.00.

2. Another time Carlos bought 2 bags of Brutus Bites and 3 bags of Lucky Licks for $42.50. The next week he bought 5 bags of Brutus Bites and 6 bags of Lucky Licks for $94.25.

3. Carlos purchased 6 dog leashes and 6 cat brushes for $45.00 for Clarita to use while pampering the pets. Later in the summer he purchased 3 additional dog leashes and 2 cat brushes for $19.00.

4. One week he tried out a cheaper brand of cat and dog food. On Monday he purchased 3 small bags of cat food and 5 small bags of dog food for $22.75. On Wednesday he buys 2 more small bags of cat food and 3 more small bags of dog food, which cost him $14.25.

5. One week Carlos bought 2 packages of dog bones and 4 packages of cat treats for $18.50. Because the cats didn't like the cat treats, Carlos returned 3 unopened packages of cat treats and bought 2 more packages of dog bones. After being refunded for the cat treats, Carlos only had to pay $1.00 for his purchase.

Solve the following systems of equations by **any method.**

6. $y = -1 - x$
   $5x + y = -13$

Solution: _____

8. $y = 5x - 7$
   $-3x - 2y = -12$

Solution: _____

10. $7x + 2y = 24$
    $4x + y = 15$

Solution: _____

7. $x = -\frac{4}{3} + y$
   $x = -3 + y$

Solution: _____

9. $2x + y = 20$
   $6x - 5y = 12$

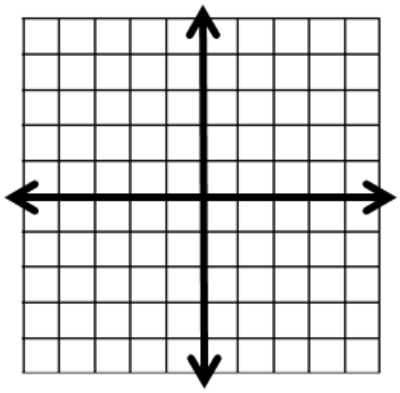
Solution: _____

11. $8x + y = -16$
    $9x - 3y = 15$

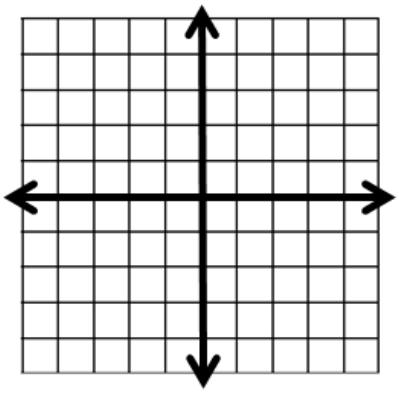
Solution: _____

Solve the following systems of equations **by graphing** and **circle the solution**.

12. $y = -\frac{1}{2}x - 1$
    $y = \frac{1}{4}x - 4$

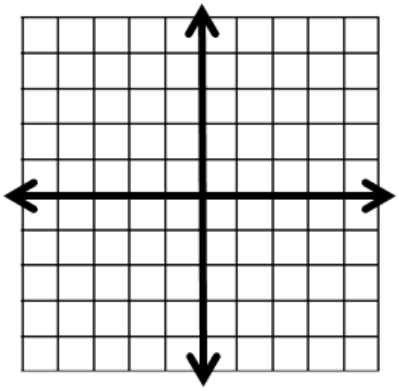


13. $y = 3x - 4$
    $y = -\frac{1}{2}x + 3$



Solve the following systems of inequalities **by graphing** and **circle the solution set**.

14. $y \leq \frac{1}{2}x + 1$
    $y > -2x - 2$



15. $y \geq -x - 1$
    $y < x$