

A2T Chapter 3.1 – 3.3 Review

Name: _____

Period: _____

Directions: Find the solution for each pair of equations. Write your answers in ordered pairs. **Show all work.**

1. $y = \frac{2}{5}x - 3$
 $3x + 4y = -35$

2. $4a + b = 25$
 $3a - 2b = 27$

3. $5m - 3n = -11$
 $2m + 5n = -23$

4. $x + 3y = 4$
 $5y = 2x - 30$

5. $4c + 5d = -38$
 $3c - 7d = 36$

6. $y = \frac{1}{2}x - 5$
 $y = \frac{3}{4}x - 8$

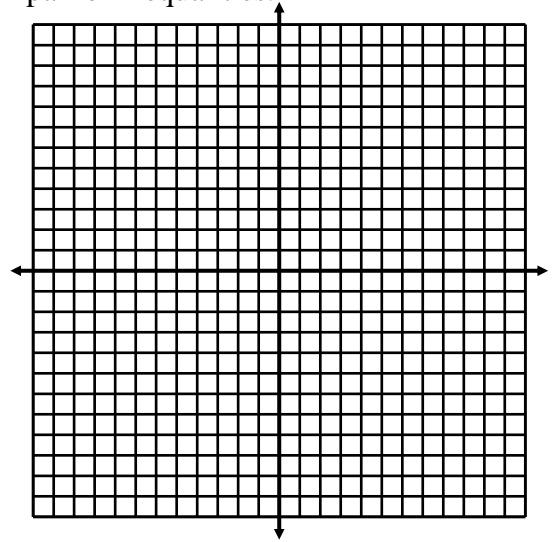
Directions: Solve the word problem. **Show all work.** Answer the question with a complete sentence in the answer banks.

7. Mark bought some paint to paint his house. He bought 4 gallons of white paint and 5 gallons of green paint, spending \$172. Later, he needed more paint and bought 3 more gallons of white and 2 gallon of green, spending \$94 to finish his house. How much did each gallon of paint cost?
8. Jerry works 2 jobs. He works as an accountant's assistant making \$27.50 an hour. On the weekends and some nights, he teaches students how to play the guitar, charging \$25 an hour. Last week, he made \$1,257.50 for working a total of 46.5 hours at both jobs. How many hours did he work at each job last week?

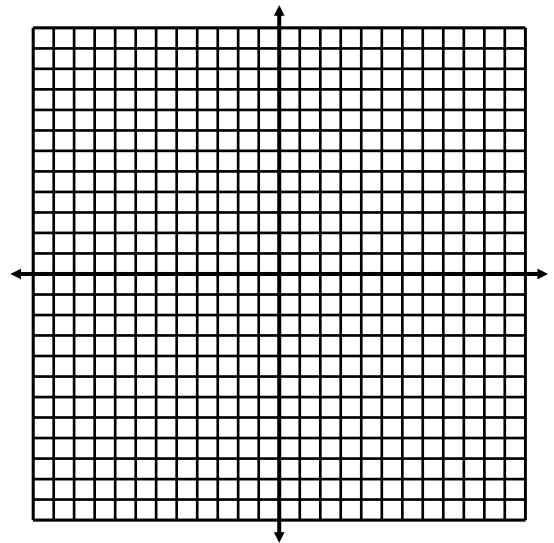
9. The Lunch Box has 2 lunch specials. The number # 1 lunch special consists of a bowl of soup, a salad, and a drink for \$5.50, while lunch special #2 is a sandwich, a salad, and a drink for \$6.00. One day they sold 83 lunch specials, making \$483.50. How many of each lunch special were sold that day?
10. Kyle needs to mix a 25% alcohol solution with a 10% alcohol solution to get 1500 ml of an 18% alcohol solution. How much of each does he needs?
11. Sal is combining a Ugandan coffee that costs \$9.00 a pound and a Brazilian coffee that cost \$7.40 a pound to get 50 pounds of a coffee that costs \$8.20 a pound. How much of each coffee does he need?

Directions: Find all the solutions (shade the correct area) for each pair of inequalities.

12. $y < \frac{1}{2}x - 2$
 $4x - 3y \leq 15$



13. $4x + 2y \geq -12$
 $y < \frac{3}{2}x - 3$



Directions: Solve the word problem by setting up 2 inequalities, graphing them, using the graph to answer the question.

14. Holly is having a fund-raising banquet for a local politician. Each seat at the banquet costs \$100 or a whole table of 8 people costs \$750. The room that is having the banquet seats at most 300 people. Holly is hoping to make at least \$27,000 for the politician. What is one way she can raise the money for politician?

