

Chapter 5

Test B

Solve the system of linear equations using any method.

1. $x - 5y = -30$

$3x + 5y = 10$

2. $x + 2y = -3$

$-5x + 2y = 51$

3. $-5x - 4y = -15$

$10x + 8y = 30$

4. $y = 2x + 3$

$-4x + 2y = 8$

5. $y = -5x + 6$

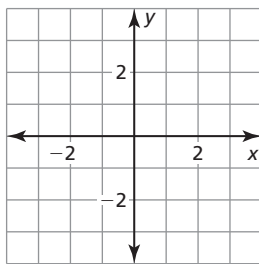
$2x + y = 6$

6. $x = -y - 1$

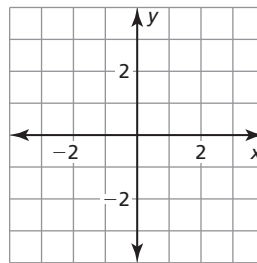
$-5x + 2y = -65$

Graph the inequality in a coordinate plane.

7. $y > 0$



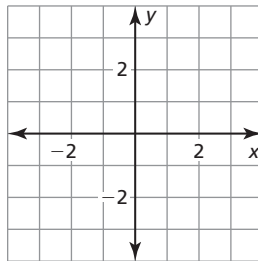
8. $2x - 5y \leq -10$



Graph the system of linear inequalities.

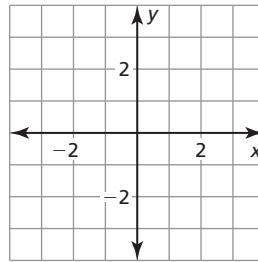
9. $3x + 2y \geq -2$

$x + 2y \leq 2$



10. $2x - 3y \geq 6$

$-4x + 6y \leq -18$



11. Write an expression that you can substitute for x in the top equation of the system below to solve the system by substitution.

$5x - 2y = 8$

$x - y = 1$

12. You have \$8.80 in pennies and nickels. You have twice as many nickels as pennies. Write a system of linear equations that models the situation. How many of each type of coin do you have?

Answers

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. **See left.**8. **See left.**9. **See left.**10. **See left.**

11. _____

12. _____

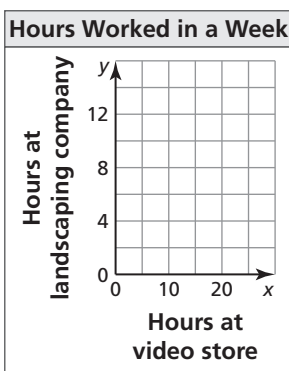
Chapter 5 Test B (continued)

Use only the slopes and y-intercepts of the graphs of the equations to determine whether the system of linear equations has *one solution*, *no solution*, or *infinitely many solutions*. Explain.

13. $x = -3y + 28$ 14. $2x + 3y = 11$ 15. $x + 2y = 3$
 $x + 4y = 36$ $-4x - 6y = -22$ $-2x - 4y = -20$

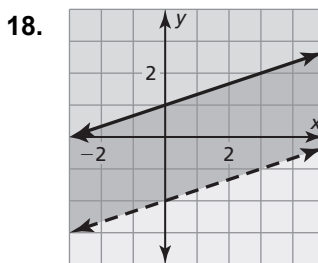
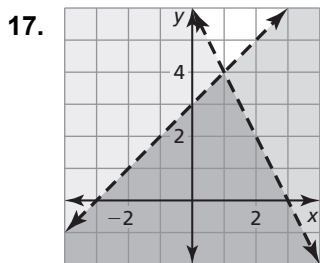
16. You make \$5 an hour in tips working at a video store and \$7 an hour in tips working at a landscaping company. You must work at least 4 hours per week at the video store, and the total number of hours you work at both jobs in a week cannot be greater than 15.

- a. Write a system of linear inequalities to model the number of hours that you could work at each location in a week.
 b. Graph the system of linear inequalities.



- c. Write an equation that models the total tips you receive from the two jobs.
 d. Identify and interpret a solution of the system.

Write a system of linear inequalities represented by the graph.



Solve the equation by graphing. Check your solution(s).

19. $2x - 3 = x + 2$ 20. $|x - 1| = |2x - 5|$ 21. $|-x| = |2x - 3|$

Answers

13. _____

 14. _____

 15. _____

 16. a. _____

 b. **See left.**
 c. _____
 d. _____

 17. _____

 18. _____

 19. _____
 20. _____
 21. _____