

Chapter 5 Test A

Solve the system of linear equations using any method.

1. $-6x + 5y = 1$
 $6x + 4y = -10$

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

3. $-7x - 2y = -13$
 $x - 2y = 11$

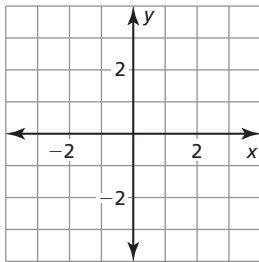
4. $-5x + y = -3$
 $3x - 8y = 24$

5. $3x - 2y = 2$
 $5x - 5y = 10$

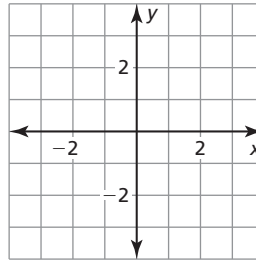
6. $6x + 6y = -6$
 $5x + y = -13$

Graph the inequality in a coordinate plane.

7. $x > -2$

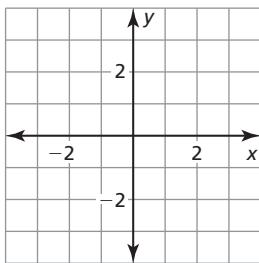


8. $y \leq -2x + 2$

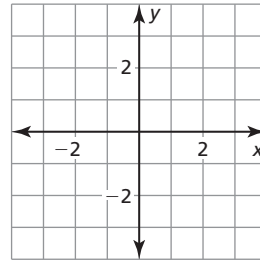


Graph the system of linear inequalities.

9. $y < 3x - 4$
 $y \geq -\frac{1}{2}x + 3$



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



11. Two students are going to the store to buy school supplies for the new school year. One of the students buys 2 packs of pencils and 3 packs of pens for \$8.25. Her friend purchases 5 packs of pencils and 2 packs of pens for \$11.00. Is there enough information to determine the cost of 1 pack of pencils and 1 pack of pens? If so, find the cost of each.

Answers

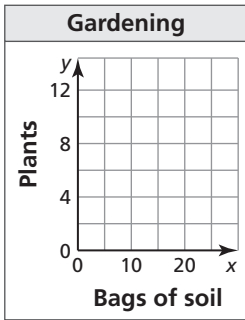
1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. **See left.**
8. **See left.**
9. **See left.**
10. **See left.**
11. _____

Chapter 5 Test A (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.

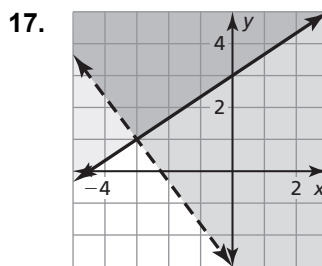
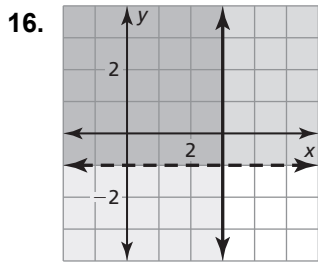
12. $-3x + 3y = 4$ 13. $2x + 3y = -6$ 14. $x + y = 7$
 $-x + y = 3$ $-4x - 6y = 12$ $2x - 3y = -21$

15. You are buying plants and soil for your garden. The soil costs \$4.00 per bag and the plants cost \$10.00 each. You want to buy at least 5 plants and can spend no more than \$100 total.
- Write a system of linear inequalities to model the situation.
 - Graph the system of linear inequalities.



- Identify and interpret a solution to the system.

Write a system of linear inequalities represented by the graph.



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

18. $2x = -x + 3$ 19. $2x - 1 = 5x + 5$ 20. $|3x - 4| = |x|$

Answers

12. _____

13. _____

14. _____

15. a. _____

b. **See left.**

c. _____

16. _____

17. _____

18. _____

19. _____

20. _____