Name _____ Date _____

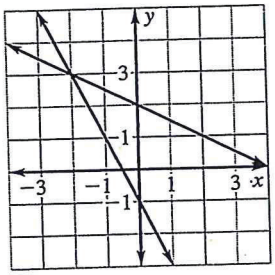
CHAPTER 6

Chapter Test A

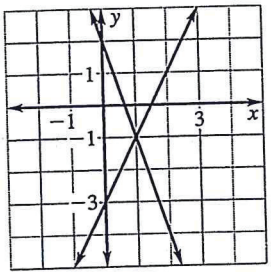
For use after the chapter "Systems of Equations and Inequalities"

Use the graph to solve the linear system.

1. $x + 2y = 4$
$2x + y = -1$



2. $2x - y = 3$
$3x + y = 2$

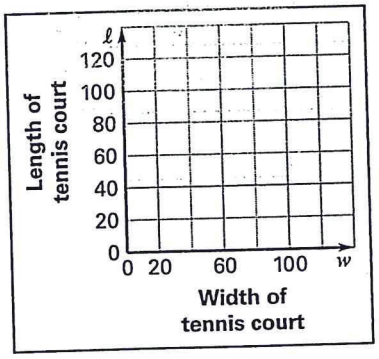


In Exercises 3–5, use the following information.

You are painting the white lines around the perimeter of a tennis court. You measure and find that the perimeter is 228 feet and the length is 42 feet longer than the width.

3. Write a linear system. Let w be the width of the tennis court and let ℓ be the length of the tennis court.

4. Graph the linear system.



5. Find the length and width of the tennis court.

Solve the linear system using substitution.

6. $x = 2$
$3x + 2y = 4$

7. $3x - 2y = 6$
$y = 3$

8. $x = y + 1$
$x + 2y = 7$

9. $3x - y = 2$
$y = 2x - 9$

10. $3x + y = 4$
$4x - 3y = 1$

11. $x + y = 12$
$3x - 2y = 6$

12. A cosmetologist has a bottle of 7% hydrogen peroxide solution and a bottle of 4% hydrogen peroxide solution. The cosmetologist needs 300 milliliters of a 5% hydrogen peroxide solution for a hair dye. Write and solve a linear system to find how many milliliters of each solution the cosmetologist needs to mix together.

Answers

1. _____
2. _____
3. _____
_____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
_____
_____

Chapter Test A *continued*

For use after the chapter "Systems of Equations and Inequalities"

Solve the linear system using elimination.

13. $x + y = 4$
$x - y = 6$

14. $9x + 2y = 4$
$9x - y = 25$

15. $4x - 5y = 22$
$x + 2y = -1$

16. $x - 2y = 4$
$3x + 4y = 2$

17. $4x + 3y = 7$
$7x + 2y = 9$

18. $2x - 3y = 16$
$3x + 4y = 7$

Determine whether the linear system has *one solution, no solution,* or *infinitely many solutions.*

19. $y = 2x - 1$
$y = 2x + 1$

20. $3x + y = 12$
$y = 3x + 12$

21. $3x - y = 5$
$y = 3x - 5$

Answers

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

21. _____