

**Objective:** Assess students' mastery of concepts and skills in Chapter 6.



## Resources



Assessment Resources

Chapter 6 Tests

- Free Response (Levels A, B, C)
- Multiple Choice (Levels A, B, C)
- Performance Assessment

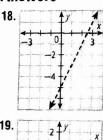


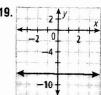
IDEA Works! CD-ROM

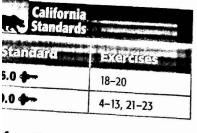
Modified Chapter 6 Test



## Answers







Chapter 6

Tell whether the ordered pair is a solution of the given system.

Tell whether the 24.

1. 
$$(1, -4)$$
;  $\begin{cases} y = -4x \\ y = 2x - 2 \end{cases}$  no

Tell whether the ordered pair is a solution of the given system.

1. 
$$(1,-4)$$
;  $\begin{cases} y=-4x \\ y=2x-2 \end{cases}$  no

2.  $(0,-1)$ ;  $\begin{cases} 3x-y=1 \\ x+5y=-5 \end{cases}$  yes

3.  $(3,2)$ ;  $\begin{cases} x-2y=-1 \\ -3x+2y=5 \end{cases}$ 

Solve each system by graphing.

4. 
$$\begin{cases} y = x - 3 \\ y = -2x - 3 \end{cases}$$
 (0, -3)

Solve each system by graphing.  
4. 
$$\begin{cases} y = x - 3 \\ y = -2x - 3 \end{cases}$$
 (0, -3) (5. 
$$\begin{cases} 2x + y = -8 \\ y = \frac{1}{3}x - 1 \end{cases}$$
 (-3, -2) (6. 
$$\begin{cases} y = -x + 4 \\ x = y + 2 \end{cases}$$
 (3, 1)

6. 
$$\begin{cases} y = -x + 4 \\ x = y + 2 \end{cases}$$
 (3, 1)

Solve each system by substitution

7. 
$$\begin{cases} y = -6 \\ y = -2x - 2 \end{cases}$$
 (2, -6)

Solve each system by substitution.

7. 
$$\begin{cases} y = -6 \\ y = -2x - 2 \end{cases}$$
(2, -6)

8. 
$$\begin{cases} -x + y = -4 \\ y = 2x - 11 \end{cases}$$
(7, 3)

9. 
$$\begin{cases} x - 3y = 3 \\ 2x = 3y \end{cases}$$
(-3, -2)

10. The costs for services at two kennels are shown in the table. Joslyn plans to board her dog and have him bathed once during his stay. For what number of days will the cost for boarding and bathing her dog at each kennel be the same? What will that cost be? If Joslyn plans a week-long vacation, which is the cheaper service? Explain. 6; \$195; Fido's; it will cost less per day after 6 days.

Kennel Costs Boarding (\$ per day) Bathing Pet Care Fido's

Solve each system by elimination.

11. 
$$\begin{cases} 3x - y = 7 \\ 2x + y = 3 \end{cases}$$
 (2, -1)

Solve each system by elimination.

11. 
$$\begin{cases} 3x - y = 7 \\ 2x + y = 3 \end{cases}$$
 (2, -1)

12. 
$$\begin{cases} 4x + y = 0 \\ x + y = -3 \end{cases}$$
 (1, -4)

13. 
$$\begin{cases} 2x + y = 3 \\ x - 2y = -1 \end{cases}$$
 (1, 1)

13. 
$$\begin{cases} 2x + y = 3 \\ x - 2y = -1 \end{cases}$$
 (1, 1)

Classify each system. Give the number of solutions.

14. 
$$\begin{cases} y = 6x - 1 & \text{cons. and dep.;} \\ 6x - y = 1 & \text{inf. many} \end{cases}$$

15. 
$$\begin{cases} y = -3x - 3 & \text{incons.} \\ 3x + y = 3 & \text{no sol.} \end{cases}$$

14. 
$$\begin{cases} y = 6x - 1 & \text{cons. and dep.;} \\ 6x - y = 1 & \text{solutions} \end{cases}$$
15. 
$$\begin{cases} y = -3x - 3 & \text{incons.;} \\ 3x + y = 3 & \text{no sol.} \end{cases}$$
16. 
$$\begin{cases} 2x - y = 1 & \text{cons. and indep.;} \\ -4x + y = 1 & \text{one sol.} \end{cases}$$

17. The sum of the digits of a two-digit number is 13. When the digits are reversed, the new number is 27 less than the original number. What is the original number? 85

Graph the solutions of each linear inequality.

**18.** 
$$y < 2x - 5$$

**19.** 
$$-y \ge 8$$

**20.** 
$$y > \frac{1}{3}x$$

Graph each system of linear inequalities. Give two ordered pairs that are solutions and two that are not solutions.

$$\mathbf{21.} \begin{cases} y > \frac{1}{2}x - 5 \\ y \le 4x - 1 \end{cases}$$

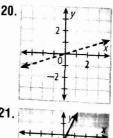
**22.** 
$$\begin{cases} y > -x + 4 \\ 3x - y > 3 \end{cases}$$

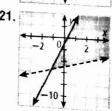
$$23. \begin{cases} y \ge 2x \\ y - 2x < 6 \end{cases}$$

24. Ezra and Tava sold at least 150 coupon books. Ezra sold at most 30 books more than twice the number Tava sold. Show and describe all possible combinations of the numbers of coupon books Ezra and Tava sold. List two possible combinations.

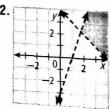
Chapter 6 Systems of Equations and Inequalities

## **Answers**

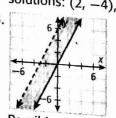




Possible answers: solutions: (2, 0), (4, 0); not solutions: (-2, 0), (-4, 0)



Possible answers: solutions: (6, 4), (9, 0); not solutions: (2, -4), (0, 0)



Possible answers: solutions: (0, 1), (0, 2); not solutions: (-6, 0), (4, 1) 24. Ezra and Tava could have sold any combinations represented by an ordered pair of whole numbers in the solutions region. Possible answers: (Tava: 50, Ezra: 125),

