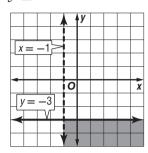
## **Skills Practice** 6-6

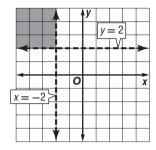
## Systems of Inequalities

Solve each system of inequalities by graphing.

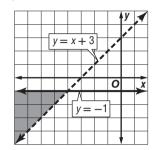
1. 
$$x > -1$$
  $y \le -3$ 



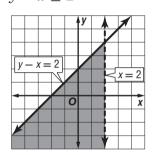
**2.** 
$$y > 2$$
  $x < -2$ 



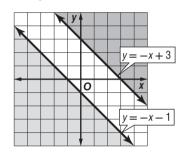
$$3. y > x + 3$$
  
 $y \le -1$ 



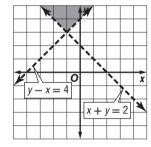
$$4. x < 2$$
$$y - x \le 2$$



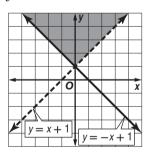
**5.** 
$$x + y \le -1$$
  $x + y \ge 3$  **Ø**



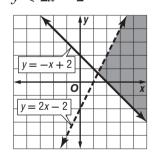
**6.** 
$$y - x > 4$$
  $x + y > 2$ 



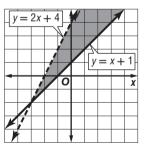
7. 
$$y > x + 1$$
  
 $y \ge -x + 1$ 



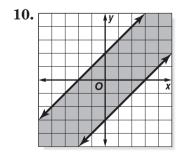
**8.** 
$$y \ge -x + 2$$
  $y < 2x - 2$ 



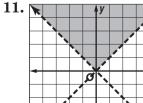
**9.** 
$$y < 2x + 4$$
  $y \ge x + 1$ 



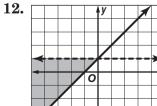
Write a system of inequalities for each graph.



$$y \le x + 2, y \ge x - 3$$



$$y > -x$$
,  $y > x$ 



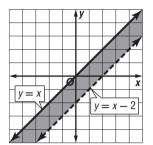
$$y \ge x + 1, y < 1$$

## **Practice** 6-6

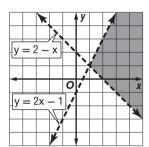
## Systems of Inequalities

Solve each system of inequalities by graphing.

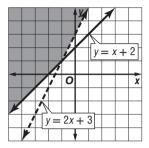
$$\mathbf{1.} \ y > x - 2 \\
 y \le x$$



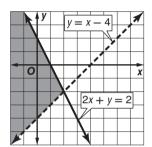
**4.** 
$$y < 2x - 1$$
  $y > 2 - x$ 



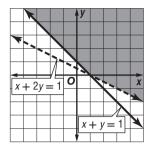
**2.** 
$$y \ge x + 2$$
  $y > 2x + 3$ 



**5.** 
$$y > x - 4$$
  $2x + y \le 2$ 

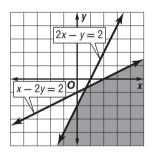


$$3. x + y \ge 1$$
  
 $x + 2y > 1$ 

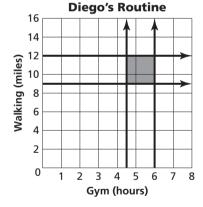


Lesson 6-6

**6.** 
$$2x - y \ge 2$$
  $x - 2y \ge 2$ 



- **7. FITNESS** Diego started an exercise program in which each week he works out at the gym between 4.5 and 6 hours and walks between 9 and 12 miles.
  - **a.** Make a graph to show the number of hours Diego works out at the gym and the number of miles he walks per week.
  - **b.** List three possible combinations of working out and walking that meet Diego's goals. Sample answers: gym 5 h, walk 9 mi; gym 6 h, walk 10 mi, gym 5.5 h, walk 11 mi



**Turquoise Stones** 

4 5

6

5

3

2

\$6 Stones

- **8. SOUVENIRS** Emily wants to buy turquoise stones on her trip to New Mexico to give to at least 4 of her friends. The gift shop sells stones for either \$4 or \$6 per stone. Emily has no more than \$30 to spend.
  - **a.** Make a graph showing the numbers of each price of stone Emily can purchase.
  - **b.** List three possible solutions. **Sample answer:** 0 3 one \$4 stone and four \$6 stones; three \$4 \$4 Stones stones and three \$6 stones; five \$4 stones and one \$6 stone