

# 7.6 EXERCISES

## HOMWORK KEY

 = **WORKED-OUT SOLUTIONS**  
on p. WS1 for Exs. 13 and 39

 = **TAKS PRACTICE AND REASONING**  
Exs. 21, 22, 33, 40, 42, and 43

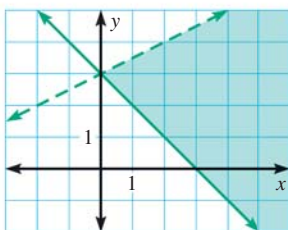
### SKILL PRACTICE

- VOCABULARY** Copy and complete: A(n) ? of a system of linear inequalities is an ordered pair that is a solution of each inequality in the system.
- WRITING** Describe the steps you would take to graph the system of inequalities shown.
 

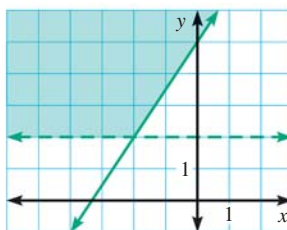
$x - y < 7$	<b>Inequality 1</b>
$y \geq 3$	<b>Inequality 2</b>

**CHECKING A SOLUTION** Tell whether the ordered pair is a solution of the system of inequalities.

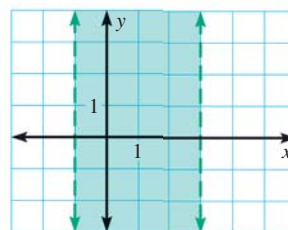
3. (1, 1)



4. (0, 6)



5. (3, -1)



#### EXAMPLE 1

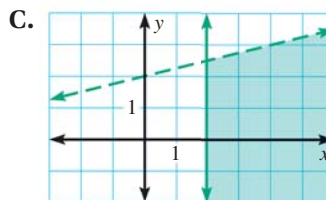
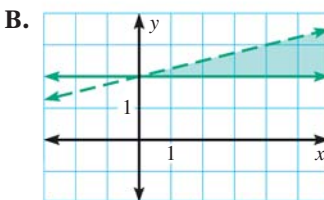
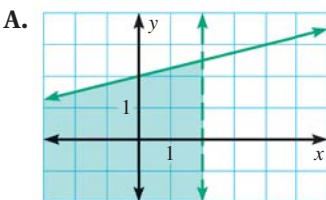
on p. 466  
for Exs. 6–17

**MATCHING SYSTEMS AND GRAPHS** Match the system of inequalities with its graph.

6.  $x - 4y > -8$   
 $x \geq 2$

7.  $x - 4y \geq -8$   
 $x < 2$

8.  $x - 4y > -8$   
 $y \geq 2$



**GRAPHING A SYSTEM** Graph the system of inequalities.

9.  $x > -5$   
 $x < 2$

10.  $y \leq 10$   
 $y \geq 6$

11.  $x > 3$   
 $y > x$

12.  $y < -2x + 3$   
 $y \geq 4$

**13.**  $y \geq 0$   
 $y < 2.5x - 1$

14.  $y \geq 2x + 1$   
 $y < -x + 4$

15.  $x < 8$   
 $x - 4y \leq -8$

16.  $y \geq -2$   
 $2x + 3y > -6$

17.  $y - 2x < 7$   
 $y + 2x > -1$

18.  $x < 4$   
 $y > 1$   
 $y \geq -x + 1$

19.  $x \geq 0$   
 $y \geq 0$   
 $6x - y < 12$

20.  $x + y \leq 10$   
 $x - y \geq 2$   
 $y \geq 2$

21.  **TAKS REASONING** Which ordered pair is a solution of the system  $2x - y \leq 5$  and  $x + 2y > 2$ ?

(A) (1, -1)

(B) (4, 1)

(C) (2, 0)

(D) (3, 2)

#### EXAMPLE 2

on p. 467  
for Exs. 18–21