6.7 EXERCISES

HOMEWORK KEY

- = **WORKED-OUT SOLUTIONS** on p. WS1 for Exs. 5, 19, and 57
- = **TAKS PRACTICE AND REASONING** Exs. 15, 16, 56, 59, 60, 62, and 63
- = **MULTIPLE REPRESENTATIONS** Ex. 55

SKILL PRACTICE

1. **VOCABULARY** Copy and complete: The ordered pair $(2, -4)$ is a(n) ___?___ of $3x - y > 7$.

2. **WRITING** *Describe* the difference between graphing a linear inequality in two variables and graphing a linear equation in two variables.

EXAMPLE 1 on p. 405 for Exs. 3–15

CHECKING SOLUTIONS **Tell whether the ordered pair is a solution of the inequality.**

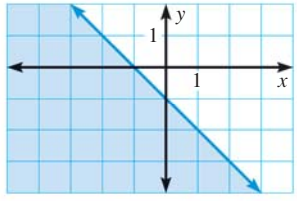
3. $x + y < -4$; $(0, 0)$
4. $x - y \leq 5$; $(8, 3)$
5. $y - x > -2$; $(-1, -4)$
6. $2x + 3y \geq 14$; $(5, 2)$
7. $4x - 7y > 28$; $(-2, 4)$
8. $-3y - 2x < 12$; $(5, -6)$
9. $2.8x + 4.1y \leq 1$; $(0, 0)$
10. $0.5y - 0.5x > 3.5$; $(6, 2)$
11. $x \geq -3$; $(-4, 0)$
12. $y \leq 8$; $(-9, -7)$
13. $\frac{3}{4}x - \frac{1}{3}y < 6$; $(-8, 12)$
14. $\frac{2}{5}x + y \geq 2$; $(1, 2)$

15. **TAKS REASONING** Which ordered pair is *not* a solution of $x + 5y < 15$?

Ⓐ $(-1, -3)$ Ⓑ $(-1, 3)$ Ⓒ $(1, 3)$ Ⓓ $(3, 2)$

EXAMPLES 2, 3, 4, and 5 on pp. 406–407 for Exs. 16–38

16. **TAKS REASONING** The graph of which inequality is shown?



Ⓐ $x + y \leq -1$ Ⓑ $x + y \geq -1$

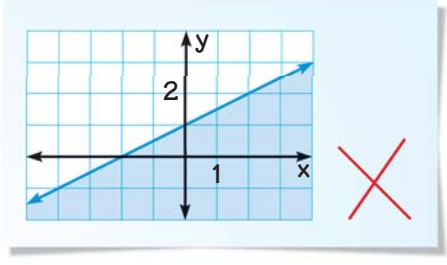
Ⓒ $x - y \leq -1$ Ⓓ $x - y \geq -1$

GRAPHING INEQUALITIES **Graph the inequality.**

17. $y > x + 3$
18. $y \leq x - 2$
19. $y < 3x + 5$
20. $y \geq -2x + 8$
21. $x + y < -8$
22. $x - y \leq -11$
23. $x + 8y > 16$
24. $5x - y \geq 1$
25. $2(x + 2) > 7y$
26. $y - 4 < x - 6$
27. $-4y \leq 16x$
28. $6(2x) \geq -24y$
29. $y < -3$
30. $x \geq 5$
31. $x > -2$
32. $y \leq 4$
33. $3(x - 2) > y + 8$
34. $x - 4 \leq -2(y + 6)$
35. $\frac{1}{2}(x + 2) + 3y < 8$
36. $2(x + 1) \geq \frac{1}{4}y - 1$

ERROR ANALYSIS ***Describe*** **and correct the error in graphing the inequality.**

37. $2y - x > 2$



38. $x \leq -3$