5.1 EXERCISES

HOMEWORK KEY

- = **WORKED-OUT SOLUTIONS** on p. WS1 for Exs. 11, 19, and 47
- = **TAKS PRACTICE AND REASONING** Exs. 9, 40, 48, 50, 53, and 54
- = **MULTIPLE REPRESENTATIONS** Ex. 49

SKILL PRACTICE

1. **VOCABULARY** Copy and complete: The ratio of the rise to the run between any two points on a nonvertical line is called the ?.

2. **WRITING** *Explain* how you can use slope-intercept form to write an equation of a line given its slope and y-intercept.

EXAMPLE 1 on p. 283 for Exs. 3–9, 16

WRITING EQUATIONS **Write an equation of the line with the given slope and y-intercept.**

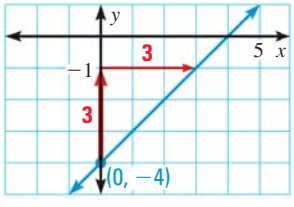
3. slope: 2, y-intercept: 9
4. slope: 1, y-intercept: 5
5. slope: -3, y-intercept: 0
6. slope: -7, y-intercept: 1
7. slope: $\frac{2}{3}$, y-intercept: -9
8. slope: $\frac{3}{4}$, y-intercept: -6

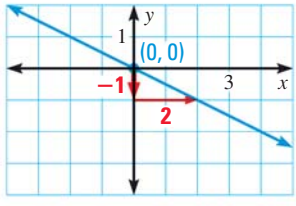
9. **TAKS REASONING** Which equation represents the line with a slope of -1 and a y-intercept of 2?

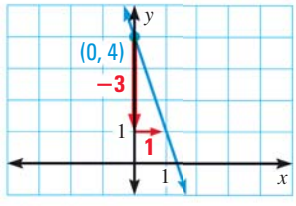
(A) $y = -x + 2$ (B) $y = 2x - 1$ (C) $y = x - 2$ (D) $y = 2x + 1$

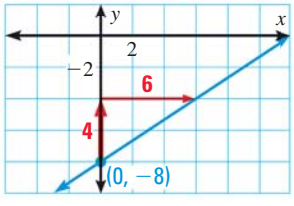
EXAMPLE 2 on p. 283 for Exs. 10–15, 17

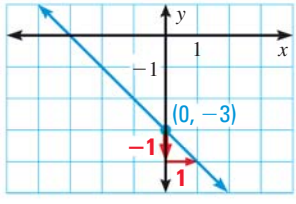
WRITING EQUATIONS **Write an equation of the line shown.**

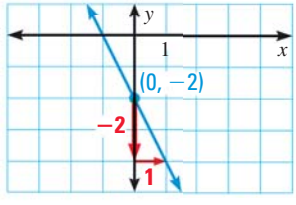
10.


11.


12.


13.


14.


15.


16. **ERROR ANALYSIS** *Describe* and correct the error in writing an equation of the line with a slope of 2 and a y-intercept of 7.

$y = 7x + 2$ ✗

17. **ERROR ANALYSIS** *Describe* and correct the error in writing an equation of the line shown.

$\text{slope} = \frac{0-4}{0-5} = \frac{-4}{-5} = \frac{4}{5}$

$y = \frac{4}{5}x + 4$ ✗