2.3 EXERCISES

SKILL PRACTICE

1. **VOCABULARY** Copy and complete: The linear equation $y = 2x + 5$ is written in __?__ form.

2. **WRITING** *Describe* how to graph an equation of the form $Ax + By = C$.

EXAMPLE 1
on p. 89
for Exs. 3–8

GRAPHING LINEAR FUNCTIONS Graph the equation. *Compare* the graph with the graph of $y = x$.

3. $y = 3x$

4. $y = -x$

5. $y = x + 5$

6. $y = x - 2$

7. $y = 2x - 1$

8. $y = -3x + 2$

EXAMPLE 2
on p. 90
for Exs. 9–22

SLOPE-INTERCEPT FORM Graph the equation.

9. $y = -x - 3$

10. $y = x - 6$

11. $y = 2x + 6$

12. $y = 3x - 4$

13. $y = 4x - 1$

14. $y = \frac{2}{3}x - 2$

15. $f(x) = -\frac{1}{2}x - 1$

16. $f(x) = -\frac{5}{4}x + 1$

17. $f(x) = \frac{3}{2}x - 3$
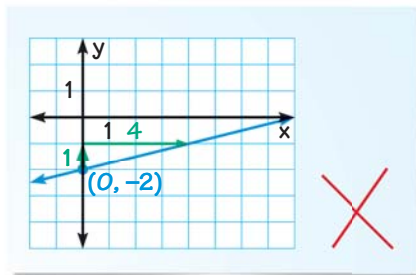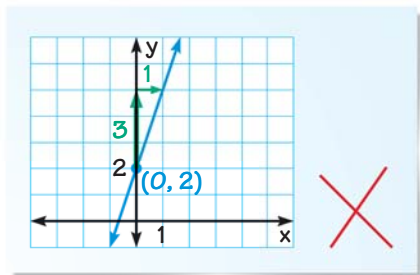
18. $f(x) = \frac{5}{3}x + 4$

19. $f(x) = -1.5x + 2$

20. $f(x) = 3x - 1.5$

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

21. $y = 2x + 3$

22. $y = 4x - 2$

23. ⬥ **TAKS REASONING** What is the slope-intercept form of $4x - 3y = 18$?

Ⓐ $y = \frac{3}{4}x - 6$ Ⓑ $y = -\frac{3}{4}x - 6$ Ⓒ $y = \frac{4}{3}x - 6$ Ⓓ $y = -\frac{4}{3}x + 6$

EXAMPLES 4 and 5
on p. 92
for Exs. 24–42

FINDING INTERCEPTS Find the x- and y-intercepts of the line with the given equation.

24. $x - y = 4$

25. $x + 5y = -15$

26. $3x - 4y = -12$

27. $2x - y = 10$

28. $4x - 5y = 20$

29. $-6x + 8y = -36$

30. ⬥ **TAKS REASONING** What is the x-intercept of the graph of $5x - 6y = 30$?

Ⓐ -5 Ⓑ $\frac{5}{6}$ Ⓒ 6 Ⓓ 30