

2.5 EXERCISES

HOMEWORK KEY

 = **WORKED-OUT SOLUTIONS**
on p. WS1 for Exs. 9, 23, and 51

 = **TAKS PRACTICE AND REASONING**
Exs. 27, 52, 54, 56, and 57

SKILL PRACTICE

- VOCABULARY** What are the coefficients of the expression $4x + 8 - 9x + 2$?
- WRITING** Are the expressions $2(x + 1)$ and $2x + 1$ equivalent? *Explain.*

ERROR ANALYSIS Describe and correct the error in simplifying the expression.

3.
$$\begin{aligned} 5y - (2y - 8) &= 5y - 2y - 8 \\ &= 3y - 8 \end{aligned}$$

4.
$$\begin{aligned} 8 + 2(4 + 3x) &= 8 + 8 + 6x \\ &= 22x \end{aligned}$$

EXAMPLES 1 and 2

on pp. 96–97
for Exs. 5–20

USING THE DISTRIBUTIVE PROPERTY Use the distributive property to write an equivalent expression.

- | | | | |
|-------------------------------------|---------------------------|---------------------------|---------------------------|
| 5. $4(x + 3)$ | 6. $8(y + 2)$ | 7. $(m + 5)5$ | 8. $(n + 6)3$ |
| 9. $(p - 3)(-8)$ | 10. $-4(q - 4)$ | 11. $2(2r - 3)$ | 12. $(s - 9)9$ |
| 13. $6v(v + 1)$ | 14. $-w(2w + 7)$ | 15. $-2x(3 - x)$ | 16. $3y(y - 6)$ |
| 17. $\frac{1}{2}(\frac{1}{2}m - 4)$ | 18. $-\frac{3}{4}(p - 1)$ | 19. $\frac{2}{3}(6n - 9)$ | 20. $\frac{5}{6}r(r - 1)$ |

EXAMPLE 3

on p. 97
for Exs. 21–26

IDENTIFYING PARTS OF AN EXPRESSION Identify the terms, like terms, coefficients, and constant terms of the expression.

- | | |
|----------------------------|------------------------------------|
| 21. $-7 + 13x + 2x + 8$ | 22. $9 + 7y - 2 - 5y$ |
| 23. $7x^2 - 10 - 2x^2 + 5$ | 24. $-3y^2 + 3y^2 - 7 + 9$ |
| 25. $2 + 3xy - 4xy + 6$ | 26. $6xy - 11xy + 2xy - 4xy + 7xy$ |

27.  **TAKS REASONING** Which two terms are like terms?

- (A) $-2, -5x$ (B) $4x, -x$ (C) $-2, -2y$ (D) $5x, -3y$

EXAMPLE 4

on p. 98
for Exs. 28–39

SIMPLIFYING EXPRESSIONS Simplify the expression.

- | | | |
|---------------------|---------------------|-------------------------|
| 28. $7x + (-11x)$ | 29. $6y - y$ | 30. $5 + 2n + 2$ |
| 31. $(4a - 1)2 + a$ | 32. $3(2 - c) - c$ | 33. $6r + 2(r + 4)$ |
| 34. $15t - (t - 4)$ | 35. $3(m + 5) - 10$ | 36. $-6(v + 1) + v$ |
| 37. $7(w - 5) + 3w$ | 38. $6(5 - z) + 2z$ | 39. $(s - 3)(-2) + 17s$ |

 **GEOMETRY** Find the perimeter and area of the rectangle.

