

2.5 EXERCISES

HOMEWORK
KEY

◆ = MULTIPLE CHOICE PRACTICE
Exs. 21, 28, 54, and 58–60

○ = HINTS AND HOMEWORK HELP
for Exs. 9, 37, and 53 at classzone.com

SKILLS • PROBLEM SOLVING • REASONING

EXAMPLES

1 and 2

on pp. 81–82
for Exs. 3–21

1. **VOCABULARY** What are the coefficients of the expression $4x + 8 - 9x + 2$?

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.

$$5y - (2y - 8) = 5y - 2y - 8 \\ = 3y - 8$$



4.

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



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. $\frac{5}{6}r(r - 1)$

21. ◆ **MULTIPLE CHOICE** Which expression is equivalent to $4x - 6$?

(A) $4(x - 2)$

(B) $-4(x + 2)$

(C) $2(2x - 3)$

(D) $-2x$

EXAMPLE 3

on p. 82
for Exs. 22–28

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

22. $-7 + 13x + 2x + 8$

23. $9 + 7y - 2 - 5y$

24. $7x^2 - 10 - 2x^2 + 5$

25. $-3y^2 + 3y^2 - 7 + 9$

26. $2 + 3xy - 4xy + 6$

27. $6xy - 11xy + 2xy - 4xy$

28. ◆ **MULTIPLE CHOICE** Which two terms are like terms?

(A) $-2, -5x$

(B) $4x, -x$

(C) $-2, -2y$

(D) $5x, -3y$

EXAMPLE 4

on p. 83
for Exs. 29–40

SIMPLIFYING EXPRESSIONS Simplify the expression.

29. $7x + (-11x)$

30. $6y - y$

31. $5 + 2n + 2$

32. $(4a - 1)2 + a$

33. $3(2 - c) - c$

34. $6r + 2(r + 4)$

35. $15t - (t - 4)$

36. $3(m + 5) - 10$

37. $-6(v + 1) + v$

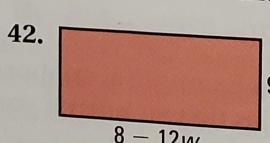
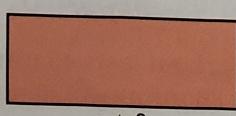
38. $7(w - 5) + 3w$

39. $6(5 - z) + 2z$

40. $(s - 3)(-2) + 17s$

GEOMETRY Find the perimeter and area of the rectangle.

41.



42.

