2.4 EXERCISES

HOMEWORK KEY

- = **WORKED-OUT SOLUTIONS** on p. WS1 for Exs. 11, 31, and 53
- = **TAKS PRACTICE AND REASONING** Exs. 48, 52, 53, 55, 57, and 58
- = **MULTIPLE REPRESENTATIONS** Ex. 54

SKILL PRACTICE

1. **VOCABULARY** What number is called the multiplicative identity?

2. **WRITING** *Describe* the difference between the identity property of multiplication and the multiplicative property of -1.

EXAMPLE 1 on p. 88 for Exs. 3–18

FINDING PRODUCTS **Find the product.**

3. $-4(7)$
4. $11(-2)$
5. $-9(-10)$
6. $-8(-11)$
7. $5(-7.2)$
8. $(-2.5)(-1.3)$
9. $-42\left(-\frac{1}{6}\right)$
10. $-\frac{1}{2}(-32)$
11. $-1.9(3.3)(7)$
12. $0.5(-20)(-3)$
13. $-\frac{5}{6}(-12)(-4)$
14. $-\frac{3}{4}(2)(-6)$
15. $-8(-4)(-2.5)$
16. $-1.6(-2)(-10)$
17. $18\left(-\frac{2}{3}\right)\left(-\frac{1}{5}\right)$
18. $-\frac{3}{4}\left(-\frac{1}{3}\right)\left(-\frac{8}{9}\right)$

EXAMPLE 2 on p. 89 for Exs. 19–27

IDENTIFYING PROPERTIES **Identify the property illustrated.**

19. $-\frac{2}{5} \cdot 0 = 0$
20. $0.3 \cdot (-3) = -3 \cdot 0.3$
21. $-143 \cdot 1 = -143$
22. $-1 \cdot (-6) = 6$
23. $(-2 \cdot 5) \cdot 4 = -2 \cdot (5 \cdot 4)$
24. $0 \cdot (-76.3) = 0$
25. $1 \cdot (ab) = ab$
26. $(3x)y = 3(xy)$
27. $s \cdot (-1) = -s$

EXAMPLE 3 on p. 90 for Exs. 28–36

USING PROPERTIES **Find the product. *Justify* your steps.**

28. $y(-2)(-8)$
29. $-18(-x)$
30. $\frac{3}{5}(-5q)$
31. $-2(-6)(-7z)$
32. $-5(-4)(-2.1)(-z)$
33. $-\frac{1}{5}(-10)(4)(-5c)$
34. $-5t(-t)$
35. $-6r(-2.8r)$
36. $\frac{1}{3}\left(-\frac{9}{10}\right)(-m)(-m)$

EVALUATING EXPRESSIONS **Evaluate the expression when $x = -2$ and $y = 3.6$.**

37. $2x + y$
38. $-x - 3y$
39. $xy - 5.4$
40. $|y| - 4x$
41. $1.5x - |-y|$
42. $x^2 - y^2$

ERROR ANALYSIS ***Describe*** **and correct the error in finding the product.**

43.
$$\begin{aligned} -1(7)(-3)(-2x) &= 7(-3)(-2x) \\ &= -21(-2x) \\ &= [-21 \cdot (-2)]x \\ &= 42x \end{aligned}$$

44.
$$\begin{aligned} (-5z)(-8)(z) &= (-8)(-5z)(z) \\ &= (-8)(-5)(z)(z) \\ &= -40(z \cdot z) \\ &= -40z^2 \end{aligned}$$