

SKILL PRACTICE

EXAMPLES
1 and 2
on pp. 8–9
for Exs. 3–21

10 Chapter

1. VOCABULARY According to the order of operations, which operation would you perform first in simplifying $50 - 5 \times 4^2 \div 2$?

2. ★ WRITING Describe the steps you would use to evaluate the expression $2(3x + 1)^2$ when $x = 3$.

EVALUATING EXPRESSIONS Evaluate the expression.

3. $13 - 8 + 3$ 4. $8 - 2^2$ 5. $3 \cdot 6 - 4$ 6. $5 \cdot 2^3 + 7$
7. $48 \div 4^2 + \frac{3}{5}$ 8. $1 + 5^2 \div 50$ 9. $2^4 \cdot 4 - 2 \div 8$ 10. $4^3 \div 8 + 8$
11. $(12 + 72) \div 4$ 12. $24 + 4(3 + 1)$ 13. $12(6 - 3.5)^2 - 1.5$ 14. $24 \div (8 + 4^2)$
15. $\frac{1}{2}(21 + 2^2)$ 16. $\frac{1}{6}(6 + 18) - 2^2$ 17. $\frac{3}{4}[13 - (2 + 3)]^2$ 18. $8[20 - (9 - 5)^2]$

EVALUATING EXPRESSIONS Evaluate the expression.

22. $4n - 12$ when $n = 7$ 23. $2 + 3x^2$ when $x = 3$ 24. $6t^2 - 13$ when $t = 2$
25. $11 + r^3 - 2r$ when $r = 5$ 26. $5(w - 4)$ when $w = 7$ 27. $3(m^2 - 2)$ when $m = 1.5$
28. $\frac{9x + 4}{3x + 1}$ when $x = 7$ 29. $\frac{k^2 - 1}{k + 3}$ when $k = 5$ 30. $\frac{b^3 - 21}{5b + 9}$ when $b = 3$

31. ★ MULTIPLE CHOICE What is the value of $\frac{x^2}{25} + 3x$ when $x = 10$?

- (A) 26 (B) 34 (C) 43 (D) 105

35. MULTI-STEP PROBLEM You join an online music service. The total cost (in dollars) of downloading 3 singles at \$.99 each and 2 albums at \$9.95 each is given by the expression $3 \cdot 0.99 + 2 \cdot 9.95$.

- a. Find the total cost.
b. You have \$25 to spend. How much will you have left?

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36. PHYSIOLOGY If you know how tall you were at the age of 2, you can estimate your adult height (in inches). Girls can use the expression $25 + 1.17h$ where h is the height (in inches) at the age of 2. Boys can use the expression $22.7 + 1.37h$. Estimate the adult height of each person to the nearest inch.

- a. A girl who was 34 inches tall at age 2
b. A boy who was 33 inches tall at age 2