

19. **TAKS REASONING** What is the value of $3[20 - (7 - 5)^2]$?
 (A) 48 (B) 56 (C) 192 (D) 972

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

20. $(1 + 13) \div 7 + 7 = 14 \div 7 + 7$
 $= 14 \div 14$
 $= 1$

21. $20 - \frac{1}{2} \cdot 6^2 = 20 - 3^2$
 $= 20 - 9$
 $= 11$

EXAMPLE 3

on p. 9
for Exs. 22–31

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. **TAKS REASONING** What is the value of $\frac{x^2}{25} + 3x$ when $x = 10$?
 (A) 26 (B) 34 (C) 43 (D) 105

CHALLENGE Insert grouping symbols in the expression so that the value of the expression is 14.

32. $9 + 39 + 22 \div 11 - 9 + 3$ 33. $2 \times 2 + 3^2 - 4 + 3 \times 5$

PROBLEM SOLVING

EXAMPLE 4

on p. 10
for Exs. 34–37

34. **SALES** Your school’s booster club sells school T-shirts. Half the T-shirts come from one supplier at a cost of \$5.95 each, and half from another supplier at a cost of \$6.15 each. The average cost (in dollars) of a T-shirt is given by the expression $\frac{5.95 + 6.15}{2}$. Find the average cost.

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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