**Name**

**1-6B** **Lesson Master**

**SKILLS** Objective C

**In 1–12, a. solve the equation, and b. check your answer by hand or with a CAS.**

1. $\frac{1}{4}x = 32$

2. $\frac{3}{5}n - 4 = 56$

3. $25 = \frac{5}{6}(m + 1)$

4. $24 = 1.2y$

5. $20 = \frac{5}{10c}$

6. $4n - (n - 1) = 7$

7. $\frac{d}{4} + \frac{d}{6} = 5$

8. $\frac{1}{6}(60x + 24) = -x$

9. $5y + 42 = 3y + 60$

10. $\frac{6}{F} = 0.2$

11. $8k - 5 = 5 - 8k$

12. $0.4(g - 20) - 0.2g = 36$

13. Suppose $g(w) = 9w + 41$.

   a. Find $g(6)$.                                                      a. _____

   b. For what value of $w$ is $g(w) = -31$?                            b. _____

14. Suppose $A(d) = \frac{d + 4}{2d}$.

   a. Find $A(8)$.                                                      a. _____

   b. For what value of $d$ is $A(d) = \frac{7}{10}$?                   b. _____

15. Suppose $f(q) = 8q - (3 + 4q)$.

   a. Find $f(-3)$.                                                     a. _____

   b. For what value of $q$ is $f(q) = 17$?                             b. _____

**Name** _____

**1-6B**

## (USES) Objective K

16. How many bows each using two-thirds of a yard of ribbon can be made from 20 yards of ribbon? _____

17. Nancy has 120 centimeters of wood molding to make a picture frame. If she wants the frame to be twice as long as it is wide, what should the outside dimensions of the frame be? _____

18. When Pedro called Gary, the call cost $1.58. If the rate for the call was 53¢ for the first three minutes and 15¢ for each additional minute or fraction thereof, how long did Pedro and Gary talk? _____

19. A bag of mixed beans for soup contains $\frac{1}{8}$ pinto beans, $\frac{3}{8}$ white beans, $\frac{1}{4}$ kidney beans, and 8 ounces of navy beans. Find the weight of the

   a. entire bag of mix. _____      b. pinto beans. _____

   c. white beans. _____      d. kidney beans. _____

20. The total bill for a restaurant meal, including 8% tax and 15% tip (both based on only the cost of the meal), was $9.84. What was the cost of the meal? _____

21. Yuko needs materials for a felt banner. She needs a half yard each of green and blue felt and 1 yard of white felt. She also needs two wooden dowels at $1.25 each and cord costing $4. If she has only $12 to spend, how much can she afford to spend per yard for the felt? _____

22. Tiara wishes to invest in bonds which pay 6% annual dividends. How much must she invest in order to have $2120 at the end of the first year? _____

23. Jon split $3500 between a savings account paying 3% interest and a Certificate of Deposit paying 5% interest. If he put $x$ dollars in the savings account, the total interest he will earn the first year will be $I(x) = 0.03x + 0.05(3500 - x)$. If this money grows to $3651 at the end of the year, how much did he put in the savings account? _____

24. The volume of the Great Pyramid of Cheops in Giza, Egypt, is about 2,559,900 m³. Use the formula $V = \frac{1}{3}Bh$ to determine the original height of the original pyramid if the area of its base $B$ is about 52,600 m³. _____