Name _____

3-5A Lesson Master

SKILLS Objective A

In 1–10, solve and check. Show your work.

1. $7x + -3x = 36$

2. $2(t + 5) = 20$

3. $29 = 15w - (4 + 4w)$

4. $r - 3 + 2r = 24$

5. $\frac{3n}{5} - \frac{5n}{3} = -14$

6. $\frac{2}{7} = 0.2(c - 1)$

7. $20 - 2(y + 41) = -38$

8. $0.57(2.4 + \frac{2}{5}t) = 0.57$

9. $39 = \frac{3}{4}(m - 12) + 9(m - 12)$

10. $50 = -5(3x + 8) - (7x - 24)$

USES Objective D

In 11–13, a situation is given. a. Write an equation to describe the situation. b. Solve the equation and answer the question.

11. During the 1700s, British Navy war ships sold captured ships for prize money. The prize money was split among the captain, officers, and crew. The captain's share was 50% greater than the crew's share, while the officers' share equaled the captain's. Let P be the prize money and C be the crew's share. Assuming a prize of 10,000 pounds sterling, how much is the crew's share?

a. _____

b. _____

12. A café has 12 tables. From experience, the owner knows that she will earn a $9 profit on food at each table during dinner. She also knows that she will earn a $1.50 profit on every drink ordered at each table. If the profit yesterday during dinner was $234, on average, how many drinks were ordered per table?

a. _____

b. _____

13. Nancy gets a 15% discount on each copy of software she purchases after the first 10 copies. She gets another 20% discount on each copy after 25. On orders over 25, her total cost c is $c = P(22.75 + 0.65(n - 25))$, where P is the price of the software and n is the number of copies ordered. If Nancy ordered $3,066.05 worth of software, which sells for $89 before discounts, how many copies of software did she order?

a. _____

b. _____