Name: _____

Practice & Problem Solving

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Leveled Practice **In 11–16, solve each equation.**

11. $y - 12 = 89$

$y - 12 + \square = 89 + 12$

$y = \square$

12. $80 + r = 160$

$80 + r - \square = 160 - \square$

$r = \square$

13. $60 = x - 16$

$60 + \square = x - 16 + \square$

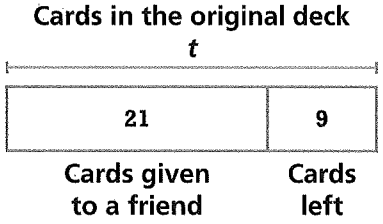
$\square = x$

14. $20 = y + 12$

15. $x + 2 = 19$

16. $z - 313 = 176$

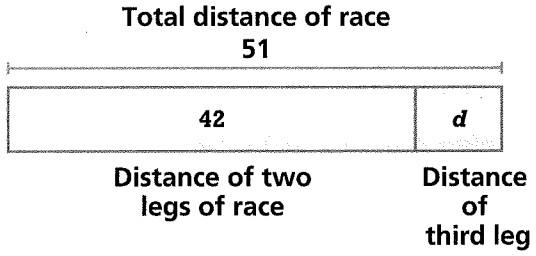
17. You have some trading cards. You give 21 cards to a friend and have 9 left for yourself. How many cards were in your original deck? Write and solve an equation to find t, the number of cards in your original deck.



18. Model with Math Joy added 26 new contacts to her phone list. She now has a total of 100 contacts. Let c represent how many contacts Joy had on her phone list before she updated it. Write an equation and solve for c.

19. Reasoning Jeremy bought a sandwich and a drink that cost him $7. His drink cost $1.75. Solve the equation $7 = s + 1.75$ to find s, the cost of Jeremy's sandwich.

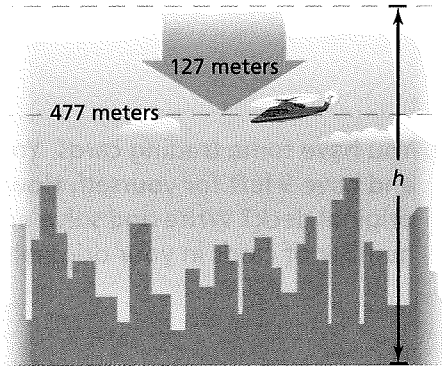
20. A triathlon is about 51 kilometers. One participant completed two of the three legs of the race and traveled 42 kilometers. Solve the equation $42 + d = 51$ for the distance, d, of the third leg of the race.



21. What operation should be used to solve the equation $153 = g + 45$? Solve the equation.

22. **Higher Order Thinking** In the equation $6 + 3y = 4y + 2$ the variable y represents the same value. Is $y = 2$, 3, 4, or 5 the solution of this equation? Explain.

23. A traffic helicopter descends to hover 477 meters above the ground. Let h be the original height of the helicopter. What is a subtraction equation that represents the problem? What was the original height of the helicopter?



24. The drama club sold all the tickets for its annual production in three days. The club sold 143 tickets the first day and 295 tickets the second day. If the drama club sold 826 tickets, how many tickets were sold on the third day of sales? Solve the equation $438 + t = 826$ for the number of tickets, t, sold on the third day of ticket sales.

25. In a bag of mixed nuts, there are 35 almonds, 34 hazelnuts, 32 walnuts, and p pistachios. The bag has a total of 134 nuts. Find the total number of almonds, hazelnuts, and walnuts. Then write and solve an equation to find the number of pistachios in the bag.

Assessment Practice

26. Select all the equations that have $g = 6$ as the solution.

- ☐ $g + 2 = 10$
- ☐ $g - 1 = 10$
- ☐ $g - 2 = 4$
- ☐ $58 + g = 60$
- ☐ $44 - g = 38$

27. Select all the equations that have $x = 4$ as the solution.

- ☐ $42 = 38 + x$
- ☐ $x + 15 = 19$
- ☐ $18 = x - 2$
- ☐ $36 = x + 32$
- ☐ $52 - x = 46$