



1-2 Additional Practice

Solving Linear Equations

Solve each equation.

1. $4m - 5 = 11$

$m = 4$

2. $-3d + 10 = 43$

$d = -11$

3. $\frac{2(r - 3)}{4} - 8 = 50$

$r = 119$

4. $5h - 13 = 12$

$h = 5$

5. $-8 = 3y - 2$

$y = -2$

6. $8(n + 2) = 24$

$n = 1$

7. $-\frac{2}{3}y - \frac{3}{4} = 5$

$y = -8\frac{5}{8}$

8. $\frac{p}{4} + 6 = 8$

$p = 8$

9. $-3 = -3(2t - 1)$

$t = 1$

10. $x - 2(x + 10) = 12$

$x = -32$

11. $-15 = 5(3q - 10) - 5q$

$q = 3.5$

12. $-5(x - 3) = -25$

$x = 8$

For Items 13–16, write and solve a linear equation to match each situation.

13. The sum of three consecutive integers is 78. What are the three integers?

$x + (x + 1) + (x + 2) = 78$ The three integers are 25, 26, and 27.

14. Darren wins a coupon for \$4 off the lunch special for each of 5 days. He pays \$75 for his 5 lunch specials. Write and solve an equation to find the original price
- p
- for one lunch special.
- $\frac{75}{5} = p - 4$
- , so
- $p = \$19$

15. Olivia ate at the same restaurant four times. Each visit she ordered a salad and left a \$1.50 tip. She spent a total of \$54. Find the cost
- c
- of each salad.

$4c + 4 \cdot 1.5 = 54$; \$12

16. Casey bought sandwiches and bags of chips. Each sandwich cost three times as much as a bag of chips. She bought 5 sandwiches for \$6 each and spent \$42.

How many bags of chips b did she buy? $5 \cdot 6 + 2b = 42$; 6

17. Renaldo catches the bus at 4:00 P.M. to ride 3.2 miles from his house to the dentist's office. He arrives at 4:30 P.M., for a one-hour appointment. Then he rides a bus traveling at the same rate of speed for 4.8 miles to the soccer field. Is he on time for his 6:30 P.M. soccer practice? Explain.

$3.2 \text{ miles} = 0.5 \text{ hours} \cdot r$, so the rate of speed for the bus is 6.4 mph, and 4.8 miles will take 45 minutes. He is on time, because 5:30 P.M. plus 45 minutes is 6:15 P.M.

18. What property was used on
- $14k + 2(3k + 5) - 5 = 10$
- to obtain

$14k + 6k + 10 - 5 = 10$? The Distributive Property was used to multiply 2 times the contents of the parentheses.