

① p. 144-145 #3-13 odd, 27-35 odd  
 A #9 ② p. 151 #12-18, 19-23 odd, 33-34

Key

① p. 144-145 #3-13 odd, 27-35 odd

3.  $3x + 7 = 19$

$+(-7) \quad +(-7)$

$\frac{3x}{3} = \frac{12}{3}$

$x = 4$

check

$3(4) + 7 = 19$

$12 + 7 = 19 \checkmark$

5.  $7d - 1 = 13$

$7d + (-1) = 13$

$\frac{7d}{7} = \frac{14}{7}$

$d = 2$

$d = 2$

check

$7(2) - 1 = 13$

$14 - 1 = 13 \checkmark$

7.  $10 = 7 - m$

$10 = 7 + (-m)$

$\frac{10}{3} = \frac{-m}{3}$

$3 = -m$

$m = -3$

$m = -3$

$10 = 7 - (-3)$

$10 = 7 + 3 \checkmark$

9.  $\frac{a}{3} + 4 = 6$

$+(-4) \quad +(-4)$

$(3)\frac{a}{3} = 2(3)$

$a = 6$

check

$\frac{6}{3} + 4 = 6$

$2 + 4 = 6 \checkmark$

11.  $\frac{b}{2} - 9 = 11$

$\frac{b}{2} + (-9) = 11$

$\frac{b}{2} = 20$

$(2)\frac{b}{2} = 20(2)$

$b = 40$

check

$\frac{40}{2} - 9 = 11$

$20 - 9 = 11 \checkmark$

13.  $7 = \frac{5}{6}c - 8$

$7 = \frac{5}{6}c + (-8)$

$\frac{7}{5} = \frac{c}{6}$

$(\frac{6}{5})7 = \frac{5}{6}c(\frac{6}{5})$

$c = 18$

check

$7 = \frac{5}{6}(18) - 8$

$7 = 15 - 8 \checkmark$

27.  $5.6 = 1.1p + 1.2$

$+(-1.2) \quad +(-1.2)$

$4.4 = 1.1p$

$\frac{4.4}{1.1} = \frac{1.1p}{1.1}$

$p = 4$

check

$5.6 = 1.1(4) + 1.2$

$5.6 = 4.4 + 1.2 \checkmark$

29.  $1.2j - 4.3 = 1.7$

$1.2j + (-4.3) = 1.7$

$\frac{1.2j}{1.2} = \frac{6}{1.2}$

$j = 5$

$j = 5$

check

$1.2(5) - 4.3 = 1.7$

$6 - 4.3 = 1.7 \checkmark$

31.  $14.4m - 5.1 = 2.1$

$14.4m + (-5.1) = 2.1$

$\frac{14.4m}{14.4} = \frac{7.2}{14.4}$

$m = 0.5$

$m = 0.5$

check

$14.4(0.5) - 5.1 = 2.1$

$7.2 - 5.1 = 2.1 \checkmark$

A#9 continued

Key

$$33. \frac{C}{5.3} + 8.3 = 11.3$$

$$+(-8.3) \quad +(-8.3)$$

$$(5.3) \frac{C}{5.3} = 3(5.3)$$

$$C = 15.9$$

check

$$\frac{15.9}{5.3} + 8.3 = 11.3$$

$$3 + 8.3 = 11.3 \checkmark$$

$$35. -1.2 = \frac{Z}{4.6} - 2.7$$

$$-1.2 = \frac{Z}{4.6} + (-2.7)$$

$$+2.7 \quad +2.7$$

$$(4.6) 1.5 = \frac{Z}{4.6} (4.6)$$

$$Z = 6.9$$

$$\text{check } -1.2 = \frac{6.9}{4.6} - 2.7$$

$$\checkmark -1.2 = 1.5 + (-2.7)$$

2 p. 151 #12-18, 19-23 odd, 33-34

$$12. 3 + 4(z+5) = 31$$

$$3 + 4z + 20 = 31$$

$$4z + 23 = 31$$

$$+(-23) \quad +(-23)$$

$$4z = 8$$

$$\frac{4z}{4} = \frac{8}{4}$$

$$z = 2$$

check

$$3 + 4(2+5) = 31$$

$$3 + 4(7) = 31$$

$$3 + 28 = 31 \checkmark$$

$$13. 14 + 2(4g-3) = 40$$

$$14 + 2(4g + (-3)) = 40$$

$$14 + 8g + (-6) = 40$$

$$8g + 8 = 40$$

$$+(-8) \quad +(-8)$$

$$\frac{8g}{8} = \frac{32}{8}$$

$$g = 4$$

check

$$14 + 2(4(4)-3) = 40$$

$$14 + 2(16-3) = 40$$

$$14 + 2(13) = 40$$

$$14 + 26 = 40 \checkmark$$

$$14. 5m + 2(m+1) = 23$$

$$5m + 2m + 2 = 23$$

$$7m + 2 = 23$$

$$+(-2) \quad +(-2)$$

$$7m = 21$$

$$\frac{7m}{7} = \frac{21}{7}$$

$$m = 3$$

check

$$5(3) + 2(3+1) = 23$$

$$5(3) + 2(4) = 23$$

$$15 + 8 = 23 \checkmark$$

$$15. 5h + 2(11-h) = -5$$

$$5h + 2(11 + (-h)) = -5$$

$$5h + 22 + (-2h) = -5$$

$$3h + 22 = -5$$

$$+(-22) \quad +(-22)$$

$$3h = -27$$

$$\frac{3h}{3} = \frac{-27}{3}$$

$$h = -9$$

check

$$5(9) + 2(11 + (-9)) = -5$$

$$5(9) + 2(11+2) = -5$$

$$5(9) + 2(20) = -5$$

$$-45 + 40 = -5 \checkmark$$

$$16. 27 = 3c - 3(6-2c)$$

$$27 = 3c + (-3)(6 + (-2c))$$

$$27 = 3c + (-18) + 6c$$

$$27 = 9c + (-18)$$

$$+18 \quad +18$$

$$45 = 9c$$

$$\frac{45}{9} = \frac{9c}{9}$$

$$c = 5$$

check

$$27 = 3(5) - 3(6 - 2(5))$$

$$27 = 3(5) - 3(6 - 10)$$

$$27 = 3(5) - 3(6 + (-10))$$

$$27 = 3(5) + (-3)(-4)$$

$$27 = 15 + 12 \checkmark$$

$$17. -3 = 12y - 5(2y-7)$$

$$-3 = 12y + (-5)(2y + (-7))$$

$$-3 = 12y + (-10y) + 35$$

$$-3 = 2y + 35$$

$$+(-35) \quad +(-35)$$

$$\frac{-38}{2} = \frac{2y}{2}$$

$$y = -19$$

check

$$-3 = 12(-19) + (-5)(2(-19) + (-7))$$

$$-3 = 12(-19) + (-5)(-38 + (-7))$$

$$-3 = 12(-19) + (-5)(-45)$$

$$-3 = -228 + 225 \checkmark$$

A#9 Continued

Key

18.  $7v - (6 - 2v) = 12$

$7v + (-1)(6 + (-2v)) = 12$

$7v + (-6) + 2v = 12$

$9v + (-6) = 12$

$+6 \quad +6$

$\frac{9v}{9} = \frac{18}{9}$

$v = 2$  C

19.  $\frac{1}{3}(d+3) = 5$

$\times 3 \quad \times 3$

$d+3 = 15$

$+(-3) \quad +(-3)$

$d = 12$

check  $\frac{1}{3}(12+3) = 5$

$\frac{1}{3}(15) = 5 \checkmark$

21.  $\frac{4}{3}(7-n) = 12$

$\times \frac{3}{4} \quad \times \frac{3}{4}$

$7 + (-n) = 9$  check

$+(-7) \quad +(-7) \quad \frac{4}{3}(7-(-2)) = 12$

$\frac{-n}{-1} = \frac{2}{-1} \quad \frac{4}{3}(7+2) = 12$

$n = -2 \quad \frac{4}{3}(9) = 12 \checkmark$

23.  $-32 = \frac{8}{7}(3w-1)$

$\times \frac{7}{8} \quad \times \frac{7}{8}$

$-28 = 3w + (-1)$

$+1 \quad +1$

$\frac{-27}{3} = \frac{3w}{3}$

$w = -9$

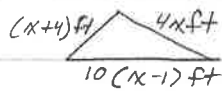
check  $-32 = \frac{8}{7}(3(-9) + (-1))$

$-32 = \frac{8}{7}(-27 + (-1))$

$-32 = \frac{8}{7}(-28)$

$-32 = -32 \checkmark$

33.  $P = 288 \text{ in}$



$288 \text{ in} = 24 \text{ ft}$

$24 = x + 4 + 4x + 10(x-1)$

$24 = x + 4 + 4x + 10x - 10$

$24 = 15x + 4 + (-10)$

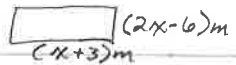
$24 = 15x + (-6)$

$+6 \quad +6$

$\frac{30}{15} = \frac{15x}{15}$

$x = 2$

34.  $P = 2600 \text{ cm}$



$2600 \text{ cm} = 26 \text{ m}$

$26 = 2(x+3) + 2(2x-6)$

$26 = 2x + 6 + 4x - 12$

$26 = 2x + 6 + 4x + (-12)$

$26 = 6x + (-6)$

$+6 \quad +6$

$\frac{32}{6} = \frac{6x}{6}$

$x = \frac{16}{3}$

or  $x = 5\frac{1}{3}$