

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. $5.6 = 1.1p + 1.2$

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

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

$4 = p$

$p = 4$

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

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

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

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

$$\boxed{C = 15.9}$$

check

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

$$3 + 8.3 = 11.3 \checkmark$$

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

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

$$\quad \quad \quad +2.7 \quad \quad \quad +2.7$$

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

$$\boxed{Z = 6.9}$$

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

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

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

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

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

$$4z + 23 = 31$$

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

$$4z = 8$$

$$\frac{4}{4} \quad \frac{8}{4}$$

$$\boxed{z = 2}$$

check

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

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

$$3 + 28 = 31 \checkmark$$

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

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

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

$$8g + 8 = 40$$

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

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

$$\boxed{g = 4}$$

check

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

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

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

$$14 + 26 = 40 \checkmark$$

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

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

$$7m + 2 = 23$$

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

$$7m = 21$$

$$\frac{7}{7} \quad \frac{21}{7}$$

$$\boxed{m = 3}$$

check

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

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

$$15 + 8 = 23 \checkmark$$

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

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

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

$$3h + 22 = -5$$

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

$$3h = -27$$

$$\frac{3}{3} \quad \frac{-27}{3}$$

$$\boxed{h = -9}$$

check

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

$$5(-9) + 2(11 + 1) = -5$$

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

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

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

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

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

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

$$\quad \quad \quad +18 \quad \quad \quad +18$$

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

$$\boxed{c = 5}$$

check

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

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

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

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

$$27 = 15 + 12 \checkmark$$

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

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

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

$$-3 = 2y + 35$$

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

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

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

$$\boxed{y = -19}$$

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

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

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

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

$$9v + (-6) = 12$$

$$\quad +6 \quad +6$$

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

$$\boxed{v=2} \quad \boxed{C}$$

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

$$\times \underline{3} \quad \times \underline{3}$$

$$d+3 = 15$$

$$\underline{+(-3)} \quad \underline{+(-3)}$$

$$\boxed{d=12}$$

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

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

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

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

$$7 + (-n) = 9 \quad \text{check}$$

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

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

$$\underline{-1} \quad \underline{-1} \quad \frac{4}{3}(9) = 12 \checkmark$$

$$\boxed{n=-2}$$

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

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

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

$$\underline{+1} \quad \underline{+1}$$

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

$$\boxed{w=-9}$$

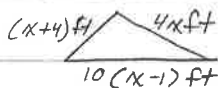
check $-32 = \frac{8}{7}(3(-9)+(-1))$

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

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

$$-32 = -32 \checkmark$$

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



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

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

$$24 = \underline{x+4} + \underline{4x} + \underline{10x-10}$$

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

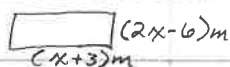
$$24 = 15x + (-6)$$

$$\underline{+6} \quad \underline{+6}$$

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

$$\boxed{x=2}$$

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



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

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

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

$$26 = \underline{2x+6} + \underline{4x+(-12)}$$

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

$$\underline{+12} \quad \underline{+12}$$

$$\frac{38}{6} = \frac{6x}{6}$$

$$\frac{38}{6} = x$$

$$\boxed{x = \frac{19}{3}}$$

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