

□ p. 157 # 3-13 odd, 22-28

Key

A # 10 □ p. 158 # 32-43

□ p. 157 # 3-13 odd, 22-28

$$3. \begin{array}{r} 8t + 5 = 6t + 1 \\ +(-6t) \quad +(-6t) \end{array} \quad 5. \begin{array}{r} 8c + 5 = 4c - 11 \\ 8c + 5 = 4c + (-11) \end{array} \quad 7. \begin{array}{r} 10b + 18 = 8b + 4 \\ +(-8b) \quad +(-8b) \end{array}$$

$$\begin{array}{r} 2t + 5 = 1 \\ +(-5) \quad +(-5) \end{array}$$

$$\begin{array}{r} +(-4c) \quad +(-4c) \end{array}$$

$$\begin{array}{r} 2b + 18 = 4 \\ +(-18) \quad +(-18) \end{array}$$

$$\begin{array}{r} 2t = -4 \\ \frac{2}{2} \quad \frac{-4}{2} \\ \boxed{t = -2} \end{array}$$

$$\begin{array}{r} +(-5) \quad +(-5) \\ 4c + 5 = -11 \end{array}$$

$$\begin{array}{r} 2b = -14 \\ \frac{2}{2} \quad \frac{-14}{2} \\ \boxed{b = -7} \end{array}$$

check

$$\begin{array}{l} -16 + 5 = -12 + 1 \\ -11 = -11 \checkmark \end{array}$$

check

$$\begin{array}{l} \frac{4}{4} \quad \frac{4}{4} \\ \boxed{c = -4} \\ -32 + 5 = -16 - 11 \\ -27 = -16 + (-11) \checkmark \end{array}$$

check

$$\begin{array}{l} -70 + 18 = -56 + 4 \\ -52 = -52 \checkmark \end{array}$$

9.  $9a = 6(a + 4)$

11.  $3(d + 12) = 8 - 4d$

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

$$\begin{array}{r} 9a = 6a + 24 \\ -6a \quad -6a \end{array}$$

$$\begin{array}{r} 3d + 36 = 8 + (-4d) \\ +4d \quad \quad +4d \end{array}$$

$$\begin{array}{r} 40 + 14j = -8j - 26 \\ +8j \quad +8j \end{array}$$

$$\begin{array}{r} 3a = 24 \\ \frac{3}{3} \quad \frac{24}{3} \\ \boxed{a = 8} \end{array}$$

$$\begin{array}{r} 7d + 36 = 8 \\ +(-36) \quad +(-36) \end{array}$$

$$\begin{array}{r} 40 + 22j = -26 \\ +(-40) \quad +(-40) \end{array}$$

check

$$\begin{array}{l} 72 = 6(8 + 4) \\ 72 = 6(12) \checkmark \end{array}$$

check

$$\begin{array}{l} \frac{7d}{7} = \frac{-28}{7} \\ \boxed{d = -4} \end{array}$$

check

$$\begin{array}{l} \frac{22j}{22} = \frac{-66}{22} \\ \boxed{j = -3} \end{array}$$

$$\begin{array}{l} 3(-4 + 12) = 8 - (-16) \\ 3(8) = 8 + 16 \\ 24 = 24 \checkmark \end{array}$$

$$\begin{array}{l} 40 + (-42) = 2(12 - 13) \\ -2 = 2(12 + (-13)) \\ -2 = 2(-1) \checkmark \end{array}$$

22.  $22x + 70 = 17x - 95$

23.  $2 - 15n = 5(-3n + 2)$

24.  $12y + 6 = 6(2y + 1)$

$$\begin{array}{r} 22x + 70 = 17x + (-95) \\ +(-17x) \quad +(-17x) \end{array}$$

$$\begin{array}{r} 2 + (-15n) = -15n + 10 \\ +15n \quad +15n \end{array}$$

$$\begin{array}{r} 12y + 6 = 12y + 6 \\ +(-12y) \quad +(-12y) \end{array}$$

$$\begin{array}{r} 5x + 70 = -95 \\ +(-70) \quad +(-70) \end{array}$$

$$2 = 10$$

$$6 = 6$$

$$\begin{array}{r} 5x = -165 \\ \frac{5}{5} \quad \frac{-165}{5} \\ \boxed{x = -33} \end{array}$$

No Real Solution

$y = \{ \text{All real } \#s \}$

A#10 Continued

Key

25.  $5(1+4m) = 2(3+10m)$  26.  $2(3g+2) = \frac{1}{2}(12g+8)$

$5+20m = 6+20m$

$6g+4 = 6g+4$

$+(-20m) \quad +(-20m)$

$+(-6g) \quad +(-6g)$

$5 = 6$

$4 = 4$

No Real Solution

$g = \{ \text{All Real \#s} \}$

27. Error: 3 was not distributed 28. Error:  $0=0 \rightarrow$  The equation is always true.

$3(x+5) = 3x+15$

Therefore,  $y = \{ \text{All real \#s} \}$

$3x+15 = 3x+15$

All steps were correct.

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

$15 = 15$

$x = \{ \text{All Real \#s} \}$

2) p. 158 # 32-43

32.  $-15c+7c+1 = 3-8c$

33.  $\frac{3}{2} + \frac{3}{4}a = \frac{1}{4}a - \frac{1}{2}$  35.  $n-10 = \frac{5}{6}n - 7 - \frac{1}{3}n$

$-8c+1 = 3+(-8c)$

$\frac{3}{2} + \frac{3}{4}a = \frac{1}{4}a + (-\frac{1}{2})$

$n+(-10) = \frac{5}{6}n + (-7) + (-\frac{2}{6}n)$

$+8c \quad +8c$

$+(-\frac{1}{4}a) \quad +(-\frac{1}{4}a)$

$n+(-10) = \frac{1}{2}n + (-7)$

$1 = 3$

$\frac{3}{2} + \frac{1}{2}a = -\frac{1}{2}$

$+(-\frac{1}{2}n) \quad +(-\frac{1}{2}n)$

No Real Solution

$+(-\frac{3}{2}) \quad +(-\frac{3}{2})$

$\frac{1}{2}n + (-10) = -7$

$(2)\frac{1}{2}a = -2(2)$

$+10 \quad +10$

$a = -4$

$(2)\frac{1}{2}n = 3(2)$

36.  $3.7b+7 = 8.1b-19.4$  37.  $6.2h+5-1.4h = 4.8h+5$

$n = 6$

$3.7b+7 = 8.1b+(-19.4)$

$6.2h+5+(-1.4h) = 4.8h+5$

$+(-3.7b) \quad +(-3.7b)$

$4.8h+5 = 4.8h+5$

$7 = 4.4b+(-19.4)$

$+(-4.8h) \quad +(-4.8h)$

$+19.4 \quad +19.4$

$5 = 5$

$\frac{26.4}{4.4} = \frac{4.4b}{4.4}$

$h = \{ \text{All Real \#s} \}$

$b = 6$

A#10 Continued

Key

$$38. 0.7z + 1.9 + 0.1z = 5.5 - 0.4z$$

$$0.8z + 1.9 = 5.5 + (-0.4z)$$

$$+0.4z$$

$$+0.4z$$

$$1.2z + 1.9 = 5.5$$

$$+(-1.9) \quad +(-1.9)$$

$$\frac{1.2z = 3.6}{1.2 \quad 1.2}$$

$$z = 3$$

$$39. 5.4t + 14.6 - 10.1t = 12.8 - 3.5t - 0.6$$

$$5.4t + 14.6 + (-10.1t) = 12.8 + (-3.5t) + (-0.6)$$

$$-4.7t + 14.6 = -3.5t + 12.2$$

$$+4.7t$$

$$+4.7t$$

$$14.6 = 1.2t + 12.2$$

$$+(-12.2)$$

$$+(-12.2)$$

$$\frac{2.4 = 1.2t}{1.2 \quad 1.2}$$

$$t = 2$$

$$40. \frac{1}{8}(5y + 64) = \frac{1}{4}(20 + 2y)$$

$$\frac{5}{8}y + 8 = 5 + \frac{1}{2}y$$

$$+(-\frac{1}{2}y) \quad +(-\frac{1}{2}y)$$

$$\frac{1}{8}y + 8 = 5$$

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

$$(8)\frac{1}{8}y = -3(8)$$

$$y = -24$$

$$41. 14 - \frac{1}{5}(j - 10) = \frac{2}{5}(25 + j)$$

$$14 + (-\frac{1}{5})(j + (-10)) = \frac{2}{5}(25 + j)$$

$$14 + (-\frac{1}{5}j) + 2 = 10 + \frac{2}{5}j$$

$$+ \frac{1}{5}j$$

$$+ \frac{1}{5}j$$

$$16 = \frac{3}{5}j + 10$$

$$+(-10) \quad +(-10)$$

$$(\frac{5}{3})6 = \frac{3}{5}j(\frac{5}{3})$$

$$j = 10$$

$$42. 5(1.2k + 6) = 7.1k + 34.4$$

$$6k + 30 = 7.1k + 34.4$$

$$+(-6k) \quad +(-6k)$$

$$30 = 1.1k + 34.4$$

$$+(-34.4) \quad +(-34.4)$$

$$-4.4 = 1.1k$$

$$1.1 \quad 1.1$$

$$k = -4$$

$$43. -0.25(4v - 8) = 0.5(4 - 2v)$$

$$-0.25(4v + (-8)) = 0.5(4 + (-2v))$$

$$-v + 2 = 2 + (-v)$$

$$+v$$

$$+v$$

$$2 = 2$$

$$v = \{ \text{All Real \#s} \}$$