Chap 1 Sec 4

Solving Multi-Step Equations

1) $3x + 4 = 19$

$-4 \quad -4$

$\frac{3x}{3} = \frac{15}{3}$

$x = 5$

$-3x + 7 = -8$

$7 - 3x = -8$

$-7 \quad -7$

$\frac{-3x}{-3} = \frac{-15}{-3}$

$x = 5$

$3)\ 3\left(\frac{q-7}{3}\right) = (8)(3)$

$q - 7 = 24$

$+7 \quad +7$

$q = 31$

$\frac{q}{3} - \frac{7}{3} = 8$

$+\frac{7}{3} \quad +\frac{7}{3}$

$\frac{q}{3} = \frac{31}{3}$

$\frac{1}{3}q = \frac{31}{3}\left(\frac{3}{1}\right)$

$\frac{1}{3} \quad \frac{1}{3}$

$q = \frac{31}{1}$

$q = 31$

$\left(\frac{7}{1}\right)\left(\frac{2x-3}{7}\right) = (3)(7)$

$2x - 3 = 21$

$+3 \quad +3$

$\frac{2x}{2} = \frac{24}{2}$

$x = 12$

$(3)\left(\frac{-x+5}{3}\right) = (-6)(3)$

$-x + 5 = -18$

$-5 \quad -5$

$\frac{-x}{-1} = \frac{-23}{-1}$

$x = 23$

4) $14 = 2 + 4 - d$

$14 = 6 - d$

$-6 \quad -6$

$8 = -d$

$-1 \quad -1$

$-8 = d$

$2x - 4 + 1 = 5$

$2x - 3 = 5$

$+3 \quad +3$

$\frac{2x}{2} = \frac{8}{2}$

$x = 4$

5) $5x + 3x = 28$

$\frac{8x}{8} = \frac{28}{8}$

$x = \frac{28}{8}$

$x = \frac{7}{2}$

6) $9z - 5 - 4z = -5$

$5z - 5 = -5$

$+5 \quad +5$

$\frac{5z}{5} = \frac{0}{5}$

$z = 0$

$$\frac{2x+3}{7} = \frac{3}{2} - 4 + 2 - \frac{3}{2}$$

$$(7)\left(\frac{2x+3}{7}\right) = (-2)(7)$$

$$2x + 3 = -14$$

$$-3 \quad -3$$

$$\frac{2x}{2} = \frac{-17}{2}$$

$$x = -\frac{17}{2}$$