

Solving Multi-Step

Strategy 1 Equations Strategy 2

$$\frac{4}{-4} + \frac{3x-1}{2} = 9$$

$$\frac{2}{1} \left[\frac{4+3x-1}{2} = 9 \right]$$

$$\boxed{8} + 3x - 1 = 18$$

$$\frac{3x-1}{2} = 5$$

$$\frac{7}{-7} + 3x = 18$$

~~$$\frac{3x-1}{2} = 5$$~~

~~$$\frac{2}{1} \frac{3x-1}{2} = 5(2)$$~~

$$\frac{3x}{3} = \frac{11}{3}$$

$$\frac{10}{+1} = \frac{3x-1}{+1}$$

$$\frac{3x-1}{+1} = \frac{10}{+1}$$

$$\boxed{x = 3\frac{2}{3}}$$

$$\frac{11}{3} = \frac{3x}{3}$$

$$\frac{3x}{3} = \frac{11}{3}$$

$$\boxed{x = 3\frac{2}{3}}$$

$$\boxed{x = 3\frac{2}{3}}$$

Strategy 3

$$\frac{4}{-4} + \frac{3x-1}{2} = 9$$

~~$$\frac{4}{+4} + \frac{3x-1}{-4} = 9$$~~

$$\frac{3x-1}{2} = 5$$

~~$$(2)(3x-1) \div 2 = 5(2)$$~~

$$\frac{3x}{2} - \frac{1}{2} = 5$$

$+ \frac{1}{2} \quad + \frac{1}{2}$

~~$$3x - 1 = 10$$

$+1 \quad +1$~~

~~$$3x = 11$$

$\div 3 \quad \div 3$~~

~~$$\frac{3x}{2} = \frac{11}{2} \quad \left(\frac{2}{3} \right)$$~~

$$x = 3\frac{2}{3}$$

$$x = \frac{11}{3}$$

$$x = 3\frac{2}{3}$$

$$\frac{2(x+4)}{3} - \cancel{8} = 32$$

~~+8 +8~~

$$\frac{2(x+4)}{3} = 40$$

$$\frac{2(x+4)}{3} = 40 \quad (3)$$

$$\frac{2x+8}{3} = 40 \quad (3)$$

$$\frac{2(x+4)}{2} = \frac{120}{2}$$

$$2x + \cancel{8} = 120$$

~~-8 -8~~

$$x + \cancel{4} = 60$$

~~-4 -4~~

$$\frac{2x}{2} = \frac{112}{2}$$

$$x = 56$$

$$x = 56$$

$$\frac{4 - 3(x+6)}{2} = 12$$

-4

$$\frac{-3(x+6)}{2} = 8$$

$$\frac{-3x - 18}{2} = 8(2)$$

$$\begin{array}{r} -3x - 18 = 16 \\ +18 \quad +18 \end{array}$$

$$\begin{array}{r} -3x = 34 \\ -3 \quad -3 \end{array}$$

$$x = -11\frac{1}{3}$$