

III. Variables on both sides

$$a.) \quad \begin{array}{r} 18x + 12 = 27x + 3 \\ -18x \quad \quad -18x \\ \hline \end{array}$$

$$\begin{array}{r} 12 = 9x + 3 \\ -3 \quad \quad -3 \\ \hline 9 = 9x \\ \frac{9}{9} = \frac{9x}{9} \end{array}$$

$$\boxed{x = 1}$$

IV. Re-writing equations or formulas

$$a.) \quad \frac{d}{r} = \frac{t}{r} \quad \text{solve for } t.$$

$$t = \frac{d}{r}$$

$$b.) \quad P = 2(a + b) \quad \text{solve for } b.$$

$$\begin{array}{r} P = 2a + 2b \\ -2a \quad \quad -2a \\ \hline P - 2a = 2b \\ \frac{P - 2a}{2} = \frac{2b}{2} \\ \boxed{b = \frac{P - 2a}{2}} \end{array}$$

extra problem:

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

$$\frac{6}{3}x - 4 = 9$$

$$2x - 4 = 9$$

$$\begin{array}{r} 2x - 4 = 9 \\ +4 \quad \quad +4 \\ \hline 2x = 13 \\ \frac{2x}{2} = \frac{13}{2} \end{array}$$

$$x = \frac{13}{2}$$

$$x = 6.5$$