

3-5 More on Solving Equations

$$\begin{array}{r} \text{Var} \quad \# \\ 5x = 8 + x \\ -x \quad -x \\ \hline 4x = 8 \\ \frac{4x}{4} = \frac{8}{4} \\ x = 2 \end{array}$$

$$\begin{array}{r} 8a + 1 = 3a + 7 \\ -1 \quad -1 \\ \hline \end{array}$$

$$\begin{array}{r} 8a = 3a + 6 \\ -3a \quad -3a \\ \hline \end{array}$$

$$\frac{5a}{5} = \frac{6}{5} \quad a = \frac{6}{5}$$

Answer

$$w = \frac{-3}{5}$$

$$8w + 4 - 2w = w + 1$$

$$6w + 4 = w + 1$$

$$\begin{array}{r} -4 \quad -4 \\ \hline 6w = w - 3 \end{array}$$

$$6w = w - 3$$

$$-w \quad -w$$

$$\frac{5w}{5} = \frac{-3}{5}$$

Key Questions

Does $3 - (x - 4) = 3 - x - 4$ **No**

Does $3 + (x - 4) = 3 + x - 4$ **Yes**

Var.

#

$$3(4x - 2) = 5x$$

$$\begin{array}{r|l} 12x - 6 & = 5x \\ -5x & \downarrow -5x \\ \hline 7x - 6 & = 0 \\ +6 & +6 \\ \hline 7x & = 6 \end{array}$$

$$x = \frac{6}{7}$$