

1. Solve for unknown x. Use the identity properties.

$$\begin{array}{r} x + 1 = 1 \\ -1 \quad -1 \\ \hline x = \emptyset \end{array}$$

$$\begin{array}{r} x + 3 = 3 \\ -3 \quad -3 \\ \hline x = \emptyset \end{array}$$

$$\begin{array}{r} 1 - x = 1 \\ -1 \quad -1 \\ \hline (-1) - x = \emptyset (-1) \\ 3 - x = 3 \\ -3 \quad -3 \\ \hline (-1) - x = \emptyset (-1) \end{array}$$

$$\begin{array}{r} x = \emptyset \\ x = 1 \end{array}$$

$$\begin{array}{r} 3x = 3 \\ \cancel{3} \quad \cancel{3} \\ x = \frac{3}{3} = 1 \end{array}$$

$$x \cdot \frac{1}{x} = 1 \cdot x$$

$$1 = 1x = x$$

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

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

$$1 = x$$

$$\begin{array}{r} x + 2 = 2 \\ -2 \quad -2 \\ \hline x = \emptyset \end{array}$$

$$\begin{array}{r} x + 4 = 4 \\ -4 \quad -4 \\ \hline x = \emptyset \end{array}$$

$$\begin{array}{r} 2 - x = 2 \\ -2 \quad -2 \\ \hline (-1) - x = \emptyset (-1) \\ 4 - x = 4 \\ -4 \quad -4 \\ \hline (-1) - x = \emptyset (-1) \end{array}$$

$$\begin{array}{r} 2x = 2 \\ \cancel{2} \quad \cancel{2} \\ x = \frac{2}{2} = 1 \end{array}$$

$$4x = 4$$

$$x = \frac{4}{4} = 1$$

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

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

$$x \cdot \frac{4}{x} = 4 \cdot x$$

$$\frac{4}{\cancel{x}} = \frac{4x}{\cancel{x}}$$

$$1 = x$$