

Solving 1-step Equations

* Goal: Isolate the variable.

$$\text{Ex 1: } \begin{array}{r} m + 13 = 49 \\ -13 \quad -13 \\ \hline \end{array}$$

$$\boxed{m = 36}$$

check:

$$\begin{array}{l} m + 13 = 49 \\ 36 + 13 = 49 \\ 49 = 49 \end{array}$$

$$\text{Ex 2: } \begin{array}{r} 5m = -125 \\ \hline 5 \quad 5 \end{array}$$
$$\begin{array}{r} 5 \overline{)125} \\ -10 \downarrow \\ \hline 25 \end{array}$$

$$\boxed{m = -25}$$

check:

$$\begin{array}{l} 5m = -125 \\ 5(-25) = -125 \\ -125 = -125 \end{array}$$

$$\text{Ex 3: } \begin{array}{r} k = 30 \\ -6 \end{array}$$

$$\begin{array}{l} (-6) \cdot k = 30(-6) \\ \hline 1 \quad = 6 \end{array}$$

$$\boxed{k = -180}$$

check:

$$\begin{array}{l} k = 30 \\ -6 \\ \hline -180 = 30 \\ -6 \\ \hline 30 = 30 \end{array}$$

$$\text{Ex 4: } 46 = C - 50$$

$$\begin{array}{r} 46 = C + (-50) \\ + 50 \qquad + 50 \\ \hline \end{array}$$

$$\boxed{96 = C}$$

check:

$$\begin{array}{l} 46 = C - 50 \\ 46 = 96 - 50 \\ 46 \stackrel{\checkmark}{=} 46 \end{array}$$

$$\text{EX 5: } \frac{\cancel{3} \cdot 2}{\cancel{2} \cdot \cancel{3}} m = \frac{\cancel{18} \cdot 3}{1 \cdot \cancel{2}}$$

$$\boxed{m = 27}$$

check:

$$\frac{2}{3} m = 18$$
$$\frac{2}{\cancel{3}} \cdot \frac{\cancel{27}}{1} = 18$$
$$18 \stackrel{\checkmark}{=} 18$$