

Solving Multi-Step Equations

Solve each equation.

$$1) -12 - 2 = 4c + 6 + c$$

$$-14 = 5c + 6$$

$$\begin{array}{r} -6 \quad -6 \\ \hline \end{array}$$

$$\begin{array}{r} -20 = 5c \\ \hline 5 \quad 5 \end{array}$$

$$\boxed{-4 = c}$$

$$2) -7(3m - 7) = 7$$

$$-21m + 49 = 7$$

$$\begin{array}{r} -49 \quad -49 \\ \hline \end{array}$$

$$\begin{array}{r} -21m = -42 \\ \hline -21 \quad -21 \end{array}$$

$$\boxed{m = 2}$$

$$3) \frac{3y}{4} - \frac{2y}{5} = -7$$

$$20 \left(\frac{3y}{4} - \frac{2y}{5} \right) = (-7)(20)$$

$$15y - 8y = -140$$

$$\begin{array}{r} 7y = -140 \\ \hline 7 \end{array}$$

$$\boxed{y = -20}$$