

# **Clearing Fractions in Equations**

# Fractions in Equations

To Solve:

Multiply each term by a common denominator

$$(4) \frac{5x}{4} + \overset{(4)}{2} = \overset{(4)}{x} + 7 \overset{(4)}{4}$$

$$\begin{array}{r} 5x + 8 = \cancel{x} + 28 \\ -x \qquad \qquad \quad +x \\ \hline 4x + 8 = 28 \\ \quad -8 \quad \quad -8 \\ \hline 4x = 20 \\ \quad \quad \quad \frac{4}{4} \quad \quad \frac{20}{4} \end{array}$$

$$\boxed{x=5}$$

$$(14) \frac{x}{2} - 3 = \frac{x}{7} + 2 \quad (14)$$

$$\begin{array}{r} 7x - 42 = 2x + 28 \\ -2x \quad -2x \\ \hline 5x - 42 = 28 \\ +42 \quad +42 \\ \hline 5x = 70 \\ \div 5 \quad \div 5 \\ \hline x = 14 \end{array}$$

$$(10) \frac{x}{5} + \overset{(10)}{7} = \overset{(10)}{x} + 8 \quad (10)$$

$$\begin{array}{r}
 2x + 70 = x + 80 \\
 -x \qquad -x \\
 \hline
 x + 70 = 80 \\
 -70 \quad -70 \\
 \hline
 \boxed{x = 10}
 \end{array}$$

$$(6) \frac{2x}{3} + \overset{(6)}{12} = \overset{(6)}{5x} - \overset{(6)}{10}$$

$$4x + 72 = \cancel{15x} - 60$$

$$\begin{array}{r} -15x \\ \hline \end{array}$$

$$-11x + 72 = -60$$

$$\begin{array}{r} -72 \quad -72 \\ \hline \end{array}$$

$$-11x = -132$$

$$\begin{array}{r} \underline{-11} \quad \underline{-11} \end{array}$$

$$\boxed{x = 12}$$