Clearing Fractions in Equations

Fractions in Equations

To Solve:

Multiply each term by a common denominator

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

$$5x + 8 = x + 28$$
$$-x \qquad -x$$
$$4x + 8 = 28$$
$$-8 \quad -8$$
$$\frac{4x}{4} = \frac{20}{4}$$

$$\boxed{x = 5}$$

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

$$7x - 42 = 2x + 28$$
$$-2x \qquad\qquad -2x$$
$$5x - 42 = 28$$
$$+42 \quad +42$$
$$5x = 70$$
$$\frac{}{5} \qquad \frac{}{5}$$
$$\boxed{x = 14}$$

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

$$2X + 70 = X + 80$$
$$\underline{-X \qquad -X}$$
$$X + 70 = 80$$
$$\underline{-70 \quad -70}$$
$$\boxed{X = 10}$$

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

$4x + 72 = 15x - 60$

$-15x \qquad -15x$

$-11x + 72 = -60$

$\qquad -72 \quad -72$

$-11x = -132$

$\dfrac{-11}{-11} \qquad \dfrac{-132}{-11}$

$\boxed{x = 12}$