

* Pg 100 # 8, 12, 14, 16, 19

$$8. 3(x+2) - 12 = 5(x+1)$$

$$3x + \cancel{6} - 12 = 5x + 5$$

$$\quad \quad \quad -6 \quad -6$$

$$3x - 6 = 5x + 5$$

$$\quad \quad \quad -3x \quad -3x$$

$$\quad \quad \quad -6 = 2x + 5$$

$$\quad \quad \quad +6 \quad +6$$

$$\frac{2x}{2} = \frac{-11}{2}$$

$$12. \left(\frac{2}{3}x + \frac{1}{2} = \frac{31}{6} \right)$$

$$4x + \cancel{3} = 31$$

$$\quad \quad \quad -3 \quad -3$$

$$\frac{4x}{4} = \frac{28}{4}$$

$$x = 7$$

$$14. \left(\frac{2x}{3} - \frac{3}{4} = \frac{x}{6} + \frac{21}{4} \right)$$

$$8x - 9 = 2x + 63$$

$$\quad \quad \quad -8x \quad -8x$$

$$\quad \quad \quad -9 = -6x + 63$$

$$\quad \quad \quad -63 \quad -63$$

$$\frac{72}{6} - \frac{6x}{6} =$$

$$x = 12$$

$$16. \left(\frac{3}{x} - \frac{1}{3} = \frac{1}{6} \right)$$

$$\quad \quad \quad + \quad \quad \quad \frac{1}{3}$$

$$\frac{3}{x} - \frac{1}{3} = \frac{1}{6}$$

$$19. \left(\frac{3x}{x-1} + 2 = \frac{3}{x-1} \right)$$

$$3x + 2x - 2 = 3$$

$$5x - 2 = 3$$

$$\quad \quad \quad +2 \quad +2$$

$$\frac{5x}{5} = \frac{5}{5} \quad x = 1$$