

$$\frac{(5+x)(x-5)}{2} = \frac{(x+6)^2}{2} - \frac{2(x-1)}{5} - \frac{29}{10}$$

$$\frac{(x+1)(x-3)}{4} - \frac{(x-3)^2}{4} = \frac{2(x-3)}{3}$$

$$\begin{array}{c} 2 \\ -5 \quad +3 \\ 0 \end{array}$$

$$6. \quad 12x - 5 \cdot (x - 3) - 6x = 1 - 4 - 4(3x - 11)$$

$$7. \quad 3x + 2 \cdot (x - 1) + 4x = 5(x + 1) + 1$$

$$6. \quad 12x - 5 \cdot (x - 3) - 6x = 1 - 4 - 4(3x - 11)$$

$$12x - 5x + 15 - 6x = 1 - 4 - 12x + 44$$

$$12x - 5x - 6x + 12x = 1 - 4 + 44 - 15$$

$$13x = 26 \quad x = \frac{26}{13} = 2$$

$$7. \quad 3x + 2 \cdot (x - 1) + 4x = 5(x + 1) + 1$$

$$\cancel{3x} + \cancel{2x} - 2 + 4x = \cancel{5x} + 5 + 1$$

$$4x = 5 + 1 + 2 \quad 4x = 8 \quad x = \frac{8}{4} = 2$$

05/2019

$$\frac{(5+x)(x-5)}{2} = \frac{(x+6)^2}{2} - \frac{2(x-1)}{5} - \frac{29}{10}$$

$$\frac{x^2-25}{2} = \frac{x^2+12x+36}{2} - \frac{2x-2}{5} - \frac{29}{10}$$

$$\frac{\cancel{x^2}-125}{\cancel{10}} = \frac{\cancel{x^2}+60x+180-4x+4-29}{\cancel{10}}$$

$$-60x+4x = 125+180+4-29$$

$$-56x = 280$$

$$x = -\frac{280}{56} = -5$$

05/2018

$$\frac{(x+1)(x-3)}{4} - \frac{(x-3)^2}{4} = \frac{2(x-3)}{3}$$

$$\frac{x^2 - 3x + x - 3}{4} - \frac{x^2 - 6x + 9}{4} = \frac{2x - 6}{3}$$

$$\frac{\cancel{x^2} - 9x + 3x - 9 - \cancel{x^2} + 18x - 27}{4} = \frac{8x - 24}{3}$$

$$-9x + 3x + 18x - 8x = -24 + 9 + 27$$

$$+4x = +12 \quad x = +\frac{12}{4} = +3$$

$$\frac{(x+1)(x-3)}{4} - \frac{(x-3)^2}{4} = \frac{2(x-3)}{3}$$

$$\frac{\cancel{(3+1)}\cancel{(3-3)}}{4} - \frac{\cancel{(3-3)}^2}{4} = \frac{2\cancel{(3-3)}}{3}$$

$$0 = 0 \quad \checkmark$$