

$$2) (x + 2)(x + 3)(x + 8)(x + 12) = 4x^2$$

$$(x^2 + 14x + 24)(x^2 + 11x + 24) = 4x^2$$

$$(x + 14 + 24/x)(x + 11 + 24/x) = 4$$

$$x + 24/x = t$$

$$(t + 14)(t + 11) = 4$$

$$t^2 + 25t + 150 = 0$$

$$t_1 = -10$$

$$t_2 = -15$$

$$x + 24/x = -10 \quad | *x$$

$$x^2 + 10x + 24 = 0$$

$$x_1 = -6$$

$$x_2 = -4$$

$$x + 24/x = -15 \quad | *x$$

$$x^2 + 15x + 24 = 0$$

$$D = 15^2 - 4 * 24 = 129$$

$$x_1 = (-15 + \sqrt{129})/2$$

$$x_2 = (-15 - \sqrt{129})/2$$

Деление на  $x^2$

$$1) (2x^2 - 3x + 1)(2x^2 + 5x + 1) = 9x^2$$

$$(2x^2 - 3x + 1)(2x^2 + 5x + 1) = 9$$

$$(2x - 3 + \frac{1}{x})(2x + 5 + \frac{1}{x}) = 9$$

$$2x + 1/x = t$$

$$(t - 3)(t + 5) = 9$$

$$t^2 - 3t + 5t - 15 = 9$$

$$t^2 + 2t - 24 = 0$$

$$x_1 = -6$$

$$x_2 = 4$$

$$2x + 1/x = -6 \quad *x$$

$$2x^2 + 6x + 1 = 0$$

$$D_2 = 9 - 2 = \sqrt{7}$$

$$x_1 = (-3 - \sqrt{7})/2$$

$$x_2 = (-3 + \sqrt{7})/2$$

$$2x^2 + 1 = 4x$$

$$2x^2 - 4x + 1 = 0$$

$$D_2 = 4 - 2 = \sqrt{2}$$

$$x_1 = (2 - \sqrt{2})/2$$

$$x_2 = (2 + \sqrt{2})/2$$



TIGER (TORA)

**решить схемой горнера**

$$x^4 - 5x^3 + 10x^2 - 10x + 4 = 0$$

$$(x^3 - 4x^2 + 6x - 4)(x - 1)$$

$$(x^2 - 2x + 4x)(x - 2)(x - 1)$$

4
0

$$x^3 - 4x^2 + 6x - 4$$

$$x^2 - 2x + 4x$$

	1	-5	10	-10
1	1	-4	6	-4
2	2	-2	4	0