

1) ЕГЭ - 2018

$$(x-1)^3 = 8$$

$$(x-1)^3 = 2^3$$

$$x-1 = 2$$

$$x = 3$$

$$2) 2x^3 = -54 \quad | :2$$

$$x^3 = -27$$

$$x^3 = (-3)^3$$

$$x = -3$$

$$3) x^3 - 625x = 0$$

$$x \cdot (x^2 - 625) = 0$$

$$x = 0$$

$$x^2 - 625 = 0$$

$$x^2 = 625$$

$$x = \pm 25$$

$$4) \underline{4x^3 + 28x^2} - \underline{x-7} = 0$$

$$4x^2(x+7) - (x+7) = 0$$

$$(x+7)(4x^2 - 1) = 0$$

$$x+7 = 0$$

$$x = -7$$

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

$$x^2 = \frac{1}{4}$$

$$x = \pm \frac{1}{2} = \pm 0,5$$

$$5) x^4 - 5x^2 + 6 = 0$$

$$\boxed{t = x^2}; \quad t^2 = x^4; \quad t \geq 0$$

$$t^2 - 5t + 6 = 0$$

$$t_1 = 3, \quad t_2 = 2$$

$$x^2 = 3$$

$$x = \pm \sqrt{3}$$

$$x^2 = 2$$

$$x = \pm \sqrt{2}$$