

$$1) 25 * x^4 - 109 * x^2 + 36 = 0$$

пусть  $x^2=t$

$$25t^2 - 109t + 36 = 0$$

$$d = (-109)^2 - 4 \cdot 25 \cdot 36 = 10000 + 900 + 981 = 11881 - 3600 = 8281$$

$$\sqrt{8281} = 91$$

$$x_1 = (109 + 91) / (50) = 4$$

$$x_2 = (109 - 91) / (50) = 18/50 = 9/25$$

$$d = (-109)^2 - 4 \cdot 25 \cdot 36 = 109^2 - 2^2 \cdot 5^2 \cdot 6^2 =$$
$$= 109^2 - (2 \cdot 5 \cdot 6)^2 = [109 - (2 \cdot 5 \cdot 6)][109 + (2 \cdot 5 \cdot 6)] = 49$$
$$\cdot 169$$

$$\sqrt{d} = 7 \cdot 13$$

$$36/25 = x_1 \cdot x_2$$

$$-(-109/25) = x_1 + x_2$$

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

пусть  $x^2=t$

$$t^2 + 5t + 6 = 0 \quad t_1 \cdot t_2 = 6/1 \quad t_1 + t_2 = -5/1$$

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

$$x^2 = -2 \text{ решений нет}$$

$$x^2 = -3 \text{ решений нет}$$



$$ax^2 + bx + c = 0$$
$$D = b^2 - 4ac$$
$$x_1 = (-b + \sqrt{D}) / (2a)$$
$$x_2 = (-b - \sqrt{D}) / (2a)$$

$$79^2 = (80 - 1)^2 =$$
$$= 80^2 - 2 \cdot 80 + 1$$