

Биквадратные уравнения

$$1) 25x^4 + 66x^2 - 27 = 0$$

$$2) x^6 + 9x^3 + 8 = 0$$

$$1) 25x^4 + 66x^2 - 27 = 0$$

$$t = x^2$$

$$25t^2 + 66t - 27 = 0$$

$$D/4 = 33^2 + 5^2 \cdot (3\sqrt{3})^2 = 3^2(11^2 + 5^2 \cdot$$

$$\sqrt{3}^2) =$$

$$= 3^2(121 + 75) = 3^2 \cdot 14^2$$

$$t_1 = (-33 + 3 \cdot 14) / 25 = (-33 + 42) / 25 = 9 / 25$$

$$t_2 = (-33 - 3 \cdot 14) / 25 = -75 / 25 = -3$$

$$x^2 = -3$$

реш нет

$$x^2 = 9/25$$

$$x = \pm (\frac{3}{5})$$

ответ: $\pm (3/5)$

$$2) x^6 + 9x^3 + 8 = 0$$

$$t = x^3$$

$$t^2 + 9t + 8 = 0$$

$$t_1 = -8$$

$$t_2 = -1$$

$$x^3 = -8$$

$$x = -2$$

$$x^3 = -1$$

$$x = -1$$

