

Подстановка среднего арифметического

$$(x + 1)^4 + (x + 3)^4 = 16$$

$$(x + 1)^4 + (x + 3)^4 = 16$$

$$t = x + 2$$

$$(t - 1)^4 + (t + 1)^4 = 16$$

$$t^4 - 4t^3 + 6t^2 - 4t + 1 + t^4 + 4t^3 + 6t^2 + 4t + 1 = 16$$

$$2t^4 + 12t^2 + 2 = 16$$

$$t^4 + 6t^2 + 1 = 8$$

$$y = t^2$$

$$y^2 + 6y - 7 = 0$$

$$y_1 = -7$$

$$y_2 = 1$$

$$t^2 = 1$$

$$t = \pm 1$$

$$x + 2 = 1$$

$$x = -1$$

$$x + 2 = -1$$

$$x = -3$$

Ответ: $-3; -1$

$$\frac{a + b}{2}$$