

Подстановка среднего арифметического

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

$$t = x + 2$$

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

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

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

$$2t^4 + 12t^2 - 14 = 0$$

$$t^4 + 6t^2 - 7 = 0$$

$$t^2 = u$$

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

$$u_1 = -7$$

$$u_2 = 1$$

$$t^2 = -7$$

Нет решения

$$t^2 = 1$$

$$t = 1$$

$$t = -1$$

$$x + 2 = 1$$

$$x = -1$$

$$x + 2 = -1$$

$$x = -3$$

Ответ: -1; -3.

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