

$$9) (x^2 - 10x + 15) / (x^2 - 6x + 15) = 3x / (x^2 - 8x + 15)$$

$$(x - 10 + 15/x) / (x - 6 + 15/x) = 3 / (x - 8 + 15/x)$$

$$x - 8 + 15/x = z$$

$$(z - 2) / (z + 2) = 3/z$$

$$(z(z - 2) - 3(z + 2)) / z(z + 2)$$

$$(z^2 - 2z - 3z - 6) / z(z + 2)$$

$$z^2 - 5z - 6 = 0$$

$$z_1 = 6$$

$$z_2 = -1$$

$$x - 8 + 15/x = 6$$

$$x^2 - 8x + 15 = 6x$$

$$x^2 - 14x + 15$$

$$D = 49 - 15 = 34$$

$$x_1 = 7 - \sqrt{34}$$

$$x_2 = 7 + \sqrt{34}$$

$$x^2 - 7x + 15 = 0$$

$$D = 49 - 60 = -11$$

Ответ: $7 - \sqrt{34}$; $7 + \sqrt{34}$

