

$$2(2-x) < -x(x-3)$$

$$4 - 2x < -x^2 + 3x$$

$$x^2 - 2x - 3x + 4 < 0$$

$$x^2 - 5x + 4 < 0$$

$$\Delta = (-5)^2 - 4 \cdot 1 \cdot 4 = 25 - 16 = 9$$

$$\sqrt{\Delta} = \sqrt{9} = 3$$

$$x_1 = \frac{-(-5) - 3}{2 \cdot 1}$$

$$x_2 = \frac{-(-5) + 3}{2 \cdot 1}$$

$$x_1 = \frac{5-3}{2}$$

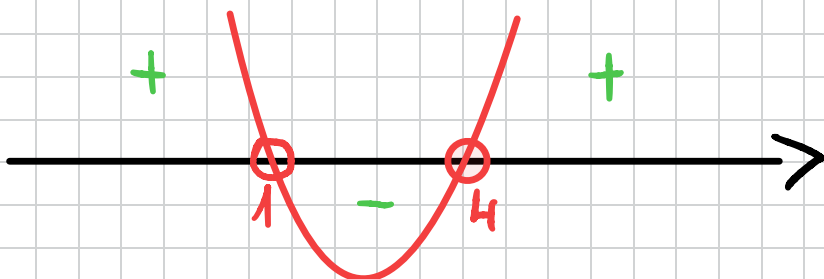
$$x_2 = \frac{5+3}{2}$$

$$x_1 = \frac{2}{2}$$

$$x_2 = \frac{8}{2}$$

$$x_1 = 1$$

$$x_2 = 4$$



$$x \in (1, 4)$$