

$$-x^2 + 2x + 3 > 0$$

$$\Delta = 2^2 - 4 \cdot (-1) \cdot 3 = 4 + 12 = 16$$

$$\sqrt{\Delta} = \sqrt{16} = 4$$

$$x_1 = \frac{-2 + 4}{2(-1)}$$

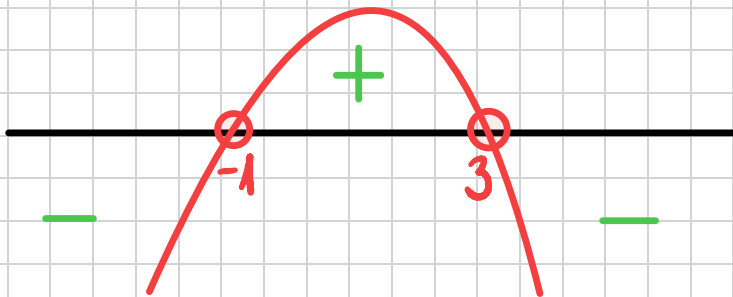
$$x_2 = \frac{-2 - 4}{2(-1)}$$

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

$$x_2 = \frac{-6}{-2}$$

$$x_1 = -1$$

$$x_2 = 3$$



$$x \in (-1, 3)$$