

Решите неравенство

$$\log_{x+8} \left(\frac{7-x}{x+1} \right)^2 \leq 1 - \log_{x+8} \frac{x+1}{x-7}$$

$$\log_{x+8} \left(\frac{7-x}{x+1} \right)^2 \leq 1 - \log_{x+8} \left(\frac{x+1}{x-7} \right)$$

$$\log_{x+8} \left(\frac{7-x}{x+1} \right)^2 + \log_{x+8} \left(\frac{x+1}{x-7} \right) \leq 1$$

$$\log_{x+8} \left(\frac{7-x}{x+1} \right)^2 * \frac{x+1}{x-7} \leq 1$$

$$\log_{x+8} \left(\frac{x-7}{x+1} \right) \leq 1$$

$$\frac{x-7}{x+1} \leq x+8$$

$$\frac{x-7}{x+1} \geq x+8$$

$$\frac{x-7-x^2-9x-8}{x+1} \leq 0$$

$$\frac{x-7-x^2-9x-8}{x+1} \geq 0$$

$$\frac{-8x-15-x^2}{x+1} \leq 0$$

$$\frac{-8x-15-x^2}{x+1} \geq 0$$

$$\{ \{-8x-15-x^2\} \leq 0$$

$$\{ \{x+1\} > 0$$

$$\{ \{-8x-15-x^2\} \geq 0$$

$$\{ \{x+1\} < 0$$

$$\{ \{x \in (-1; +\infty] \cup [-5; -3], x \in (-8; -7)$$

$$\{ \{x \in (-\infty; -5] \cup [-3; -1), x > -7$$

$$x \in (-8; -7) \cup [-5; -3] \cup (7; +\infty)$$