

Risolvere le seguenti disuguaglianze

$$1) \frac{2x^2 - 1}{3x + 4} \geq 0 \quad \left(-\frac{4}{3}, -\frac{\sqrt{2}}{2}\right] \cup \left[\frac{\sqrt{2}}{2}, +\infty\right)$$

$$2) \frac{x^2 + 2x - 8}{3x^2 + 7} \geq 0 \quad (-\infty, -4] \cup [2, +\infty)$$

$$3) \frac{1}{x-1} - \frac{1}{x-2} \geq \frac{3x}{(x-1)(x-2)} \quad \left(-\infty, -\frac{1}{3}\right] \cup (1, 2)$$

$$4) \frac{3x-1}{x+1} + \frac{2x}{x^2-1} < 0 \quad (-1, 1)$$

$$5) (x+5)(x^2-9) \geq 0 \quad [-5, -3] \cup [3, +\infty)$$

$$6) (x^2-x-2)(x+3)(x-4) \leq 0 \quad [-3, -1] \cup [2, 4]$$

$$7) \begin{cases} 4x+3 > 0 \\ x-2 \leq 0 \end{cases} \quad \left(-\frac{3}{4}, 2\right]$$

$$8) \begin{cases} x^2 - 5x + 6 \geq 0 \\ \frac{x+2}{1-x} \leq 0 \end{cases} \quad \cancel{[-2, 2]} (-\infty, -2] \cup (1, 2] \cup [3, +\infty)$$

$$9) \sqrt[3]{x} \geq -2 \quad [-8, +\infty)$$

$$10) \sqrt{x+4} - x - 2 \geq 0 \quad [-4, 0]$$

$$11) \sqrt{x^2-4} < x-1 \quad \left[2, \frac{5}{2}\right)$$