

EJERCICIOS DE INECUACIONES RACIONALES

Resuelve en \mathbb{R} siguientes inecuaciones:

$$1) \frac{6x - 25}{x - 4} \geq x$$

$$S = (-\infty, 4) \cup \{5\}$$

$$2) -3x + \frac{27}{x} \geq 0$$

$$S = (-\infty, -3] \cup (0, 3]$$

$$3) \frac{x}{2x - 3} - 1 \leq \frac{4x^2}{2x - 3}$$

$$S = [-1, \frac{3}{4}] \cup (3/2, +\infty)$$

$$4) \frac{5}{x + 1} - 1 \leq \frac{x - 4}{x}$$

$$S = (-\infty, -1) \cup [-\frac{1}{2}, 0) \cup [4, +\infty)$$

$$5) \frac{x}{x + 3} \geq \frac{x}{4 - x}$$

$$S = (-3, 0] \cup [\frac{1}{2}, 4)$$

$$6) \frac{x}{2 - x} \geq \frac{x + 2}{x}$$

$$S = [-\sqrt{2}, 0) \cup [\sqrt{2}, 2)$$

$$7) \frac{-7x}{3x + 6} + \frac{4 - x}{3} \geq 4$$

$$S = (-\infty, -16] \cup (-2, -1]$$

$$8) \frac{2x^2 - 8}{(x - 2)(x - 3)} + 2 \leq \frac{2x - 1}{x - 2}$$

$$S = (2, 3) \cup [1/2, 1]$$

$$9) \frac{x - 4}{(x - 1)(2x + 5)} - \frac{x}{(x - 1)(x + 2)} \geq 0$$

$$S = (-\infty, (-\sqrt{17} - 7)/2] \cup (-5/2, -2) \cup [(\sqrt{17} - 7)/2, 1)$$

$$10) \frac{x + 1}{(x - 2)^2} > \frac{1}{x - 2} + 3$$

$$S = (1, 3)$$