

GUÍA DE EJERCICIOS # 2

MA – 1101

Resolver las siguientes desigualdades:

$$(1) \frac{2}{3} - \frac{1}{2}x \geq \frac{1}{6} + x \quad (2) 4 - 3x \leq -(1 + 8x) \quad (3) \frac{1}{6} < \frac{2x-13}{12} \leq \frac{2}{3}$$

$$(4) -\frac{1}{2} \leq \frac{4-3x}{5} \leq \frac{1}{4} \quad (5) x^2 - 5x > 0 \quad (6) 16x \leq x^3$$

$$(7) 3x^2 - 3x < 2x^2 + 4 \quad (8) 4x^2 + 12x + 9 \leq 0 \quad (9) x^2 + 4x - 5 \geq 0$$

$$(10) x^2 - x + 1 \leq 0 \quad (11) \frac{x}{x+2} \geq 0 \quad (12) \frac{x}{x+2} < 1$$

$$(13) \frac{x}{2} \geq \frac{5}{x+1} + 4 \quad (14) \frac{(x^2-1)(x+3)}{x^2-2x} \geq 0 \quad (15) \frac{1}{x-1} + \frac{3}{x+1} \leq 2$$

$$(16) \frac{x+2}{x+3} < \frac{x-1}{x-2} \quad (17) x^4 > x^2 \quad (18) \frac{x^2-x-2}{x^2-4x+3} \geq 1$$

$$(19) |3x - 2| < 7 \quad (20) |2x + 7| \geq 5 \quad (21) 5 - |2x - 4| \leq 2$$

$$(22) \left| \frac{2x+1}{x-3} \right| \geq 5 \quad (23) \left| \frac{-x^2-2x-2}{x^2+x-2} \right| \leq 1 \quad (24) \left| 3 + \frac{1}{2x-3} \right| \geq 1$$

$$(25) \left| \frac{x-1}{2-x} \right| \geq 1 \quad (26) |x + 1| \leq 3 + x \quad (27) \frac{|x-5|+x}{x+3} > 1$$

$$(28) \frac{|x+2|-1}{|x-1|} < 2 \quad (29) \frac{|x+7|-2x}{x^2-1} \geq 0 \quad (30) \frac{|x+7|-2x}{x^2+1} \geq 0$$