Sistemas Numéricos

1.- Para cada una de las siguientes desigualdades, determine el conjunto solución y represéntelo gráficamente.

(1) $(2x+4)(x-3)(5x-25) \leq 0$

(2) $(2x+4)(x-3)(5x-25) \geq 0$

(3) $(2x+4)(x-3)(5x-25) < 0$

(4) $(2x+4)(x-3)(5x-25) > 0$

(5) $(3x-4)(2x+1)(1-4x) > 0$

(6) $(3x-4)(2x+1)(1-4x) < 0$

(7) $(3x-4)(2x+1)(1-4x) \geq 0$

(8) $(3x-4)(2x+1)(1-4x) \leq 0$

(9) $(2x-3)(3x-2)(2-3x)(3-2x) > 0$

(10) $(2x-3)(3x-2)(2-3x)(3-2x) < 0$

(11) $(2x-3)(3x-2)(2-3x)(3-2x) \leq 0$

(12) $(2x-3)(3x-2)(2-3x)(3-2x) \geq 0$

(13) $x\left(\frac{x}{2}-4\right)\left(x-\frac{1}{7}\right) > 0$

(14) $x\left(\frac{x}{2}-4\right)\left(x-\frac{1}{7}\right) < 0$

(15) $x\left(\frac{x}{2}-4\right)\left(x-\frac{1}{7}\right) \leq 0$

(16) $x\left(\frac{x}{2}-4\right)\left(x-\frac{1}{7}\right) \geq 0$

(17) $\dfrac{(x-3)(2x+6)}{x(x+4)} > 0$

(18) $\dfrac{(x-3)(2x+6)}{x(x+4)} < 0$

(19) $\dfrac{(x-3)(2x+6)}{x(x+4)} \leq 0$

(20) $\dfrac{(x-3)(2x+6)}{x(x+4)} \geq 0$

(21) $\dfrac{x^2-4x}{x^2+2x-3} \leq 0$

(22) $\dfrac{x^3-4x}{x^2+2x-3} \geq 0$

(23) $\dfrac{x^3-4x}{x^2+2x-3} < 0$

(24) $\dfrac{x^2-3x}{x^2-3x+2} > 0$

(25) $\dfrac{4x^2-9}{x^2-4x-5} \leq 0$

(26) $\dfrac{\frac{-x}{3}+\frac{1}{5}}{x} < 0$

(27) $\dfrac{x+4}{6x-3}+\dfrac{2x+1}{2x-1} \geq 0$

(28) $\dfrac{x+2}{3(4x+5)}-\dfrac{x-1}{-4x-5} < 0$

(29) $\dfrac{x^2+3x}{x-4}+\dfrac{5x-x^2}{x-4} \geq 0$

(30) $\dfrac{2x-6}{4(x-1)}+\dfrac{1-x}{2(x+1)} \leq 0$

(31) $\dfrac{2x-6}{4(x-1)}+\dfrac{1-x}{2(x+1)} \geq 0$

(32) $\dfrac{2x-6}{4(x-1)}+\dfrac{1-x}{2(x+1)} < 0$

(33) $\dfrac{2x-6}{4(x-1)}+\dfrac{1-x}{2(x+1)} > 0$

(34) $\dfrac{x+5}{x+1} \leq \dfrac{x-5}{x-1}$

(35) $\dfrac{x-2}{x-4} > \dfrac{x+2}{x}$

(36) $\dfrac{1}{x+1} < \dfrac{2}{3x-1}$

(37) $\dfrac{x-2}{x+3} \geq \dfrac{x+1}{x}$

(38) $\dfrac{1}{x+3} \geq \dfrac{x}{x+3}$

(39) $\dfrac{x}{x-2} \geq \dfrac{-2}{x-2}$

(40) $\dfrac{1}{x+9} \leq \dfrac{1}{x-1}$