

## INECUACIONES

1.  $x + 5 > 11$ , Solution is:  $(6, \infty)$
2.  $5 - x \leq 12$ , Solution is:  $[-7, \infty)$
3.  $4(x - 2) < 7$ , Solution is:  $(-\infty, \frac{15}{4})$
4.  $7(3 - x) \geq 5$ , Solution is:  $(-\infty, \frac{16}{7}]$
5.  $\frac{x-3}{2} - (\frac{2+x}{3}) > 3$ , Solution is:  $(31, \infty)$
6.  $\frac{4-2x}{5} + \frac{x-2}{2} \leq -6$ , Solution is:  $(-\infty, -58]$
7.  $\frac{5}{6}(3-x) - \frac{1}{2}(x-4) \geq \frac{1}{3}(2x-3) - x$ , Solution is:  $(-\infty, \frac{11}{2}]$
8.  $\frac{3x+1}{4} - \frac{1}{3} \leq \frac{2}{15}(3x+2) + \frac{4(1-x)}{3}$ , Solution is:  $(-\infty, 1]$
9.  $(x-3)^2 - (x-2)^2 < 5$ , Solution is:  $(0, \infty)$
10.  $(4x-3)(2+x) > (3-2x)^2$ , Solution is:  $(\frac{15}{17}, \infty)$
11.  $(x-1)^2 + (x+2)^2 > \frac{(2x-3)^2}{2}$ , Solution is:  $(-\frac{1}{16}, \infty)$
12.  $\begin{cases} 3x-4 > x+6 \\ 2x+3 < x+17 \end{cases}$ , Solution is:  $(5, 14)$
13.  $\begin{cases} 5x+1 > 2x+10 \\ x-5 \leq 15-3x \end{cases}$ , Solution is:  $(3, 5]$
14.  $\begin{cases} 2x+3(x-1) \leq x+1 \\ 2(x+3) > x+2 \end{cases}$ , Solution is:  $(-4, 1]$
15.  $\begin{cases} 2x-3 \leq 3x+7 \\ \frac{2x}{5} - \frac{x}{4} \geq \frac{2}{3} \end{cases}$ , Solution is:  $[\frac{40}{9}, \infty)$
16.  $\begin{cases} \frac{x-1}{3} - \frac{x+3}{2} \leq x \\ \frac{4x-2}{4} - \frac{x-1}{3} \geq x \end{cases}$ , Solution is:  $[-\frac{11}{7}, -\frac{1}{2}]$
17.  $\begin{cases} \frac{3(2-x)}{2} - x < \frac{16}{5} - \frac{x+1}{5} \\ \frac{x+4}{3} - \frac{x-5}{6} > 3 - \frac{2x-3}{18} \end{cases}$ , Solution is:  $(\frac{18}{5}, \infty)$
18.  $\begin{cases} (x-2)^2 > (x+3)^2 \\ (x-3)(x+3) \leq (x-5)(x+6) \end{cases}$ , No solution found.
19.  $\begin{cases} (x-1)^2 - (x+3)^2 \leq 0 \\ x-3(x-1) \geq 3 \end{cases}$ , Solution is:  $[-1, 0]$