

DISEQUAZIONI DI 1° GRADO

- 1 $4(2x-1) - 3(1-2x) > 5$ $\left[x > \frac{6}{7} \right]$
- 2 $\frac{1}{3}x - \frac{1}{2}(x-4) > \frac{5-x}{6} + 1$ $[\forall x \in \mathbb{R}]$
- 3 $3\left[\frac{x+5}{2} - 2(x-1)\right] - 8 \leq \frac{5-9x}{2}$ $[impossibile]$
- 4 $\frac{3x+1}{4} - \frac{x+5}{3} \leq 1 - \frac{x+2}{6}$ $\left[x \leq \frac{25}{7} \right]$
- 5 $\frac{1-x}{4} - \frac{2x-1}{2} > \frac{3x-1}{4} - 5\left(x + \frac{1}{3}\right)$ $\left[x > -\frac{8}{9} \right]$
- 6 $\frac{2}{3}\left[3(x-2) + \frac{1-2x}{4} - \frac{1}{2}x\right] \leq x + \frac{1}{2}$ $[x \leq 13]$
- 7 $\frac{1}{2} - \frac{1}{3}[x - 2(1-3x)] < \frac{x-1}{6} - \frac{x+1}{5}$ $\left[x > \frac{2}{3} \right]$
- 8 $4\left[\frac{x-2}{3} - 2\left(\frac{x-1}{6} - \frac{1-x}{9}\right)\right] < x - 8$ $[x > 4]$
- 9 $(3x+1)^2 - 4x(x-2) \leq 5x(x+6) - 16x$ $[impossibile]$
- 10 $(3x+1)^2 - 4x(x-2) \geq 5x(x+6) - 16x$ $[\forall x \in \mathbb{R}]$

SISTEMI DI DISEQUAZIONI DI 1° GRADO

- 11 $\begin{cases} \frac{3x-1}{3} < 2 \\ 3(2x-1) \leq 2(x-1) - x + 3 \end{cases}$ $\left[x \leq \frac{4}{5} \right]$
- 12 $\begin{cases} \frac{x}{3} + \frac{x}{5} < 8 \\ \frac{x}{2} - \frac{4x}{9} < 5 \end{cases}$ $[x < 15]$
- 13 $\begin{cases} \frac{x-1}{5} - x \leq \frac{4-x}{2} \\ 1-x + \frac{3}{2}x \leq 0 \end{cases}$ $\left[-\frac{22}{3} < x < -2 \right]$
- 14 $\begin{cases} \frac{2(3-x)}{3} < \frac{x}{2} - \frac{3}{4} \\ \frac{x}{4} - \frac{1}{2} > 2x - \frac{1}{4} \end{cases}$ $[impossibile]$
- 15 $\begin{cases} 2(3x-1) > 1-2x \\ \frac{4}{5} - \frac{1+2x}{2} > \frac{7x-3}{10} \end{cases}$ $[impossibile]$
- 16 $\begin{cases} 3x-1 < 4+x \\ x-2 > 0 \\ 2x-1 < x+3 \end{cases}$ $\left[2 < x < \frac{5}{2} \right]$

$$17 \quad \begin{cases} 7-2x > 3x-1 \\ x+9 < 0 \\ 4(x+1)+3 > x+1 \end{cases} \quad [impossibile]$$

$$18 \quad \begin{cases} 7[(x-1)-6] > 0 \\ 3x > 2(15-x) \\ \frac{1}{2}x + \frac{1}{3}x > 7 + \frac{1}{4}x \end{cases} \quad [x > 12]$$

$$19 \quad \begin{cases} 18x+5 > 3(4-x) \\ \frac{2}{5}x + \frac{3}{4}x > 23 \\ x-10 < 5x\left(\frac{1}{3}-\frac{2}{9}\right) \end{cases} \quad \left[20 < x < \frac{45}{12}\right]$$

$$20 \quad \begin{cases} \frac{2-x}{3} - \frac{x+1}{4} > \frac{x-1}{6} \\ \frac{2x+1}{3} - \frac{x-2}{6} < \frac{1-x}{2} \\ \frac{x-4}{5} + \frac{x-5}{4} < \frac{x}{20} \end{cases} \quad \left[x < -\frac{1}{6}\right]$$