

Resuelve las siguientes ecuaciones de primer grado

(OJO CON LOS SIGNOS "MENOS" DELANTE DE LAS FRACCIONES!)

a)  $3 - \frac{2x}{5} = x - \frac{3x-1}{2}$

$$\begin{aligned} \text{a)} \quad 3 - \frac{2x}{5} &= x - \frac{3x-1}{2} \\ \frac{30}{10} - \frac{4x}{10} &= \frac{10x}{10} - \frac{15x-5}{10} \end{aligned}$$

$$\begin{aligned} 30 - 4x &= 10x - 15x + 5 \\ -4x + 15x - 10x &= 5 - 30 \\ \underline{x = -25} \end{aligned}$$

b)  $\frac{x-1}{2} - \frac{x+1}{3} = 1$

$$\begin{aligned} \text{b)} \quad \frac{x-1}{2} - \frac{x+1}{3} &= 1 \\ \frac{3x-3}{6} - \frac{2x+2}{6} &= \frac{6}{6} \end{aligned}$$

$$\begin{aligned} 3x-3-2x-2 &= 6 \\ 3x-2x &= 6+3+2 \\ \underline{x = 11} \end{aligned}$$

c)  $\frac{x-1}{5} - \frac{1-x}{6} = \frac{x-1}{4}$

$$\text{c)} \quad \frac{x-1}{5} - \frac{1-x}{6} = \frac{x-1}{4}$$

$$\frac{12x-12}{60} - \frac{10-10x}{60} = \frac{15x-15}{60}$$

$$\begin{aligned} 12x - 12 - 10 + 10x &= 15x - 15 \\ 12x + 10x - 15x &= -15 + 12 + 10 \\ 7x &= 7 \\ x &= \frac{7}{7} \\ \underline{x = 1} \end{aligned}$$

$$\text{d)} \quad \frac{2}{3} \left( \frac{1}{2} - \frac{x+1}{4} \right) = \frac{5}{6}$$

$$\frac{2}{3} \cdot \frac{1}{2} - \frac{2}{3} \cdot \frac{x+1}{4} = \frac{5}{6}$$

$$\frac{2}{6} - \frac{2x+2}{12} = \frac{5}{6}$$

$$\frac{4}{12} - \frac{2x+2}{12} = \frac{10}{12}$$

$$\begin{aligned} 4 - 2x - 2 &= 10 \\ -2x &= 10 - 4 + 2 \\ -2x &= \end{aligned}$$

$$\begin{aligned} &8 \\ x &= \frac{8}{-2} \\ \underline{x = -4} \end{aligned}$$