

$$70a) \frac{(x-2)^2}{3} + \frac{14x-5}{6} = \frac{11}{6}$$

$$\frac{2(x-2)^2}{\cancel{6}} + \frac{14x-5}{\cancel{6}} = \frac{11}{\cancel{6}}$$

$$2(x^2+4-4x) + 14x-5 = 11$$

$$2x^2 + 8 - 8x + 14x - 5 = 11$$

$$2x^2 + 6x + 8 - 5 - 11 = 0$$

$$2x^2 + 6x - 8 = 0$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-6 \pm \sqrt{6^2 - (4 \cdot 2 \cdot -8)}}{2 \cdot 2}$$

$$= \frac{-6 \pm \sqrt{36 + 64}}{4} = \frac{-6 \pm \sqrt{100}}{4} = \frac{-6 \pm 10}{4} = \begin{cases} x_1 = 1 \\ x_2 = -4 \end{cases}$$

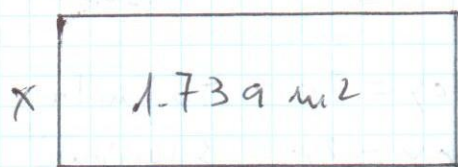
Más fácil, se puede simplificar dividiendo por 2

$$x^2 + 3x - 4 = 0$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-3 \pm \sqrt{3^2 - (4 \cdot 1 \cdot -4)}}{2 \cdot 1}$$

$$= \frac{-3 \pm \sqrt{9 + 16}}{2} = \frac{-3 \pm \sqrt{25}}{2} = \frac{-3 \pm 5}{2} = \begin{cases} x_1 = 1 \\ x_2 = -4 \end{cases}$$

88)



$$x+10$$

$$x \cdot (x+10) = 1.739 // x^2 + 10x - 1.739 = 0$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-10 \pm \sqrt{10^2 - (4 \cdot 1 \cdot 1.739)}}{2 \cdot 1}$$

$$= \frac{-10 \pm \sqrt{100 + 6956}}{2} = \frac{-10 \pm \sqrt{7056}}{2}$$

$$= \frac{-10 \pm 84}{2} = \begin{cases} x_1 = 37 \\ x_2 = -47 \end{cases}$$

Pag 98

$$14) \begin{cases} x+y=5 \\ x-y=3 \end{cases} \rightarrow \begin{cases} x=5-y \\ x=3+y \end{cases} \rightarrow 5-y=3+y //$$

$$5-3 = y+y // 2y = 2 // y = \frac{2}{2} = 1 // y = 1 \Rightarrow y = 1$$

$$x = 5 - y = 5 - 1 = 4 \Rightarrow x = 4$$

145)

$$\begin{cases} 2x+y=13 \\ x-y=2 \end{cases} \rightarrow \begin{cases} y=13-2x \\ -y=2-x \Rightarrow y=-2+x \end{cases} \rightarrow 13-2x=-2+x$$

$$2x+x = 13+2 // 3x = 15 // x = \frac{15}{3} = 5 \rightarrow \underline{\underline{x = 5}}$$

$$y = 13 - 2x = 13 - 2 \cdot 5 = 13 - 10 = 3 // \underline{\underline{y = 3}}$$

$$15a) \begin{cases} 2x + 5y = 10 \\ 4x + 10y = 20 \end{cases} \rightarrow \begin{cases} 4x + 10y = 20 \\ 4x + 10y = 20 \end{cases} \begin{array}{l} \text{Infinitas} \\ \text{Soluciones} \end{array}$$

Sistema compatible indeterminado

$$15b) \begin{cases} 2x + y = 8 \\ 2x + y = 12 \end{cases} \left. \vphantom{\begin{cases} 2x + y = 8 \\ 2x + y = 12 \end{cases}} \right\} \begin{array}{l} \text{No hay Soluci\u00f3n} \\ \text{Sistema incompatible} \end{array}$$

$$17a) \begin{cases} x + y = 5 \\ x - y = 3 \end{cases} \left. \vphantom{\begin{cases} x + y = 5 \\ x - y = 3 \end{cases}} \right\} \begin{array}{l} x + y = 5 \\ x - y = 3 \\ \hline 2x = 8 \\ x = \frac{8}{2} = 4 \quad \text{//} \quad \underline{\underline{x = 4}} \end{array}$$

$$17b) \begin{cases} x - 5y = 6 \\ 4x - 3y = 1 \end{cases} \left. \vphantom{\begin{cases} x - 5y = 6 \\ 4x - 3y = 1 \end{cases}} \right\} \begin{array}{l} 4x - 20y = 24 \\ 4x - 3y = 1 \\ \hline -17y = 23 \end{array} \left. \vphantom{\begin{array}{l} 4x - 20y = 24 \\ -4x + 3y = -1 \\ \hline -17y = 23 \end{array}} \right\} \begin{array}{l} \text{Restamos} \\ 4x - 20y = 24 \\ -4x + 3y = -1 \\ \hline -17y = 23 \end{array}$$

$$y = \frac{23}{-17} \quad \text{//} \quad \boxed{y = -\frac{23}{17}}$$

$$x - 5y = 6 \quad \text{//} \quad x - 5 \cdot \left(-\frac{23}{17}\right) = 6 \quad \text{//} \quad x + \frac{115}{17} = 6$$

$$x = 6 - \frac{115}{17} = \frac{102}{17} - \frac{115}{17} = -\frac{13}{17}$$

$$\boxed{x = -\frac{13}{17}}$$

Pag 99

15 12 11 (4)

$$18a) \quad \left. \begin{array}{l} x + 2y = 0 \\ 2x + 4y = 6 \end{array} \right\} \begin{array}{l} \rightarrow 2x + 4y = 0 \\ \rightarrow 2x + 4y = 6 \end{array}$$

Sistema
Incompatible.
No tiene solución

$$18b) \quad \left. \begin{array}{l} x - y = 5 \\ 2x - 2y = 10 \end{array} \right\} \begin{array}{l} \rightarrow 2x - 2y = 10 \\ \rightarrow 2x - 2y = 10 \end{array}$$

Infinitas Soluciones
S. compatible indeterminado