

# Guia de Exercícios - classe 4

IV e. 11)

$$a) 2x - 5 = 4x - 2$$

$$2x - 4x = -2 + 5$$

$$x = \frac{-3}{2}$$

Verificação

$$2 \cdot \left(\frac{-3}{2}\right) - 5 = 4 \cdot \left(\frac{-3}{2}\right) - 2$$

$$-3 - 5 = -6 - 2$$

$$-8 = -8$$

$$b) x - 9x + 5 = 2x + 3$$

$$x - 9x - 2x = 3 - 5$$

$$-10x = -2$$

$$x = \frac{-2}{-10} = \frac{1}{5}$$

Verificação

$$\frac{1}{5} - 9 \cdot \frac{1}{5} + 5 = 2 \cdot \frac{1}{5} + 3$$

$$\frac{1}{5} - \frac{9}{5} + 5 = \frac{2}{5} + 3$$

$$\frac{17}{5} = \frac{17}{5}$$

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

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

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

$$\frac{-x}{6} + \frac{7}{15} - \frac{17x}{15} - \frac{7}{15} = \frac{x}{6} - \frac{1}{6} + \frac{7}{15} - \frac{7}{15}$$

$$-x \left( \frac{1}{6} + \frac{7}{15} \right) =$$

$$\frac{-39x}{30} = \frac{9}{30}$$

$$-x = \frac{3}{10} \cdot \frac{30}{39} = \frac{9}{39}$$

$$x = \frac{-9}{39} = \frac{-3}{13}$$

Cálculos aux.

$$\frac{1}{5} - \frac{4}{3} = \frac{3-20}{15} = \frac{-17}{15}$$

$$\frac{1}{5} - \frac{2}{3} = \frac{3-10}{15} = \frac{-7}{15}$$

$$\frac{1}{6} + \frac{7}{15} = \frac{5+34}{30} = \frac{39}{30}$$

$$\frac{-1}{6} + \frac{7}{15} = \frac{-5+14}{30} = \frac{9}{30}$$

$$\begin{array}{r|l} 6 & 2 \quad 30 \quad 2 \\ 3 & 3 \quad 15 \quad 5 \\ 1 & 3 \quad 3 \quad 1 \end{array}$$

$$\text{nen} = 2 \cdot 3 \cdot 5 = 30$$

$$d) \frac{8x-1}{5} = \frac{2x+3}{3}$$

$$\frac{8x}{5} - \frac{1}{5} = \frac{2x}{3} + \frac{1}{3}$$

$$\frac{1}{5} \cdot \frac{2x}{3} + \frac{8x}{5} - \frac{1}{5} = \frac{2x}{3} + \frac{1}{3} + \frac{1}{5} - \frac{2x}{3}$$

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

$$2 \cdot \frac{7}{15} = \frac{6}{5}$$

$$2 \cdot \frac{14x}{15} = \frac{6}{5} \cdot 3$$

$$x = \frac{18}{15} \cdot \frac{5}{7} = \frac{6}{7}$$

Cálculos auxiliares

$$\frac{-1}{3} + \frac{4}{5} = \frac{-5+12}{15} = \frac{7}{15}$$

IV. 2)

x = cont. seats 1

y = cont. seats 2

$$x + y = 45000$$

$$10x + 15y = 495000$$

$$\textcircled{1} \quad x + y = 45000$$

$$x = 45000 - y$$

$$\textcircled{3} \quad 10x + 15 \cdot 9000 = 495000$$

$$10x = 495000 - 135000$$

$$x = 360000 : 10$$

$$\boxed{x = 36000}$$

$$\textcircled{2} \quad 10(45000 - y) + 15y = 495000$$

$$450000 - 10y + 15y = 495000$$

$$5y = 495000 - 450000$$

$$\boxed{y = 9000}$$