

Amapá, 12 de setembro de 2023.

$$1) \quad 380 + 75 = \frac{305}{5} = 61$$

Cada livro custará 61,00.

$$2) \quad \begin{aligned} \text{coeficiente linear} &= 3 \\ \text{coeficiente angular} &= 5 \end{aligned}$$

$$3) \quad x + 2y = 8 \Rightarrow$$

$$2y = 8 - x$$

$$y = \frac{4 - \frac{1}{2}x}{2}$$

$$\therefore \text{coeficiente angular} = -\frac{1}{2}x$$

$$\text{coeficiente linear} = 4$$

$$4) \quad 360.000 - 1500x = 0 \quad x = \frac{360.000}{1500} = 240$$

O imóvel será depreciado em 240 meses.

$$5) \quad a = -2$$

$$b = 5$$

$$c = -3$$

$$\Delta = 5^2 - 4 \cdot (-2) \cdot (-3)$$

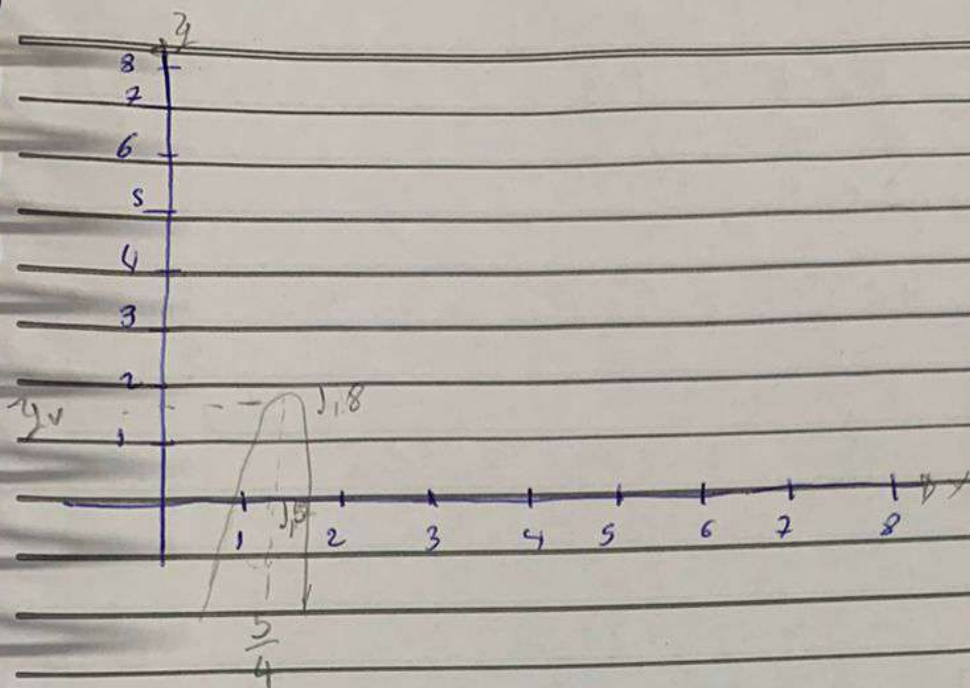
$$\Delta = 25 - (24) = 1$$

$$x_v = \frac{-b}{2a} = \frac{-5}{-4} = \frac{5}{4}$$

$$\frac{-b \pm \sqrt{\Delta}}{2a} = \frac{-5 \pm 1}{2 \cdot (-2)} = \frac{-4}{-4} = 1$$

$$y_v = \frac{-\Delta}{4a} = \frac{-1}{-8} = \frac{1}{8}$$

$$\frac{-6}{-4} = \frac{3}{2}$$



6) $a = 1$

$b = 3$

$c = -4$

$$\Delta = 3^2 - 4 \cdot 1 \cdot (-4)$$

$$\Delta = 9 - (-16)$$

$$\Delta = 25$$

$$-3 \pm \sqrt{25}$$

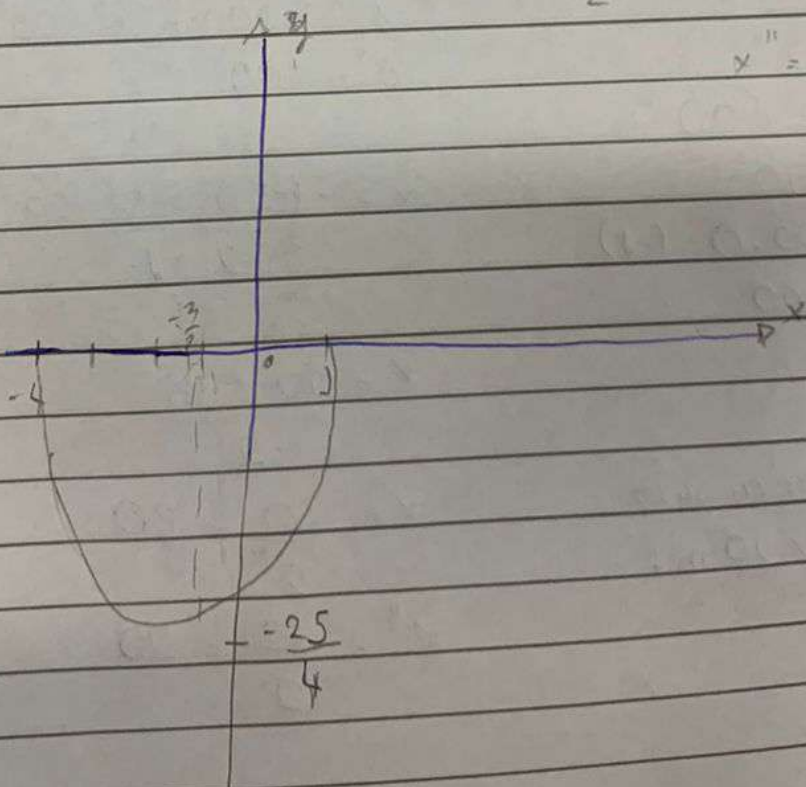
$$2,$$

$$\frac{-3 \pm 5}{2} \Rightarrow x' = \frac{-3 + 5}{2} = \frac{2}{2} = 1$$

$$x'' = \frac{-3 - 5}{2} = \frac{-8}{2} = -4$$

$$x_v = \frac{-3}{2 \cdot 1} = \frac{-3}{2}$$

$$y_v = \frac{-25}{4 \cdot 1} = \frac{-25}{4}$$



$$7) x^2 - 5 = 4x$$

$$0 = x^2 - 4x + 5$$

$$\Delta = -4^2 - 4 \cdot 1 \cdot 5$$

$$\Delta = +16 - 20$$

$$\Delta = -4$$

$$a = 1$$

$$b = -4$$

$$c = 5$$

$$x = \frac{4 \pm \sqrt{36}}{2 \cdot 1} = \frac{4 \pm 6}{2} \Rightarrow x' = \frac{4+6}{2} = 5$$

$$x'' = \frac{-2}{2} = -1$$

$$x' = 5$$

$$8) a) a = x \cdot y = 600$$

$$\text{perímetro} = x + y + x + y = 100 \text{ ou } 2x + 2y = 100$$

$$b) x + y = 50$$

$$y = 50 - x$$

$$\Delta = (-50)^2 - 4 \cdot 1 \cdot 600$$

$$\Delta = 2500 - 2400$$

$$\Delta = 100$$

$$x \cdot (50 - x) = 600$$

$$50x - x^2 = 600$$

$$-x^2 + 50x - 600 = 0 \quad (-1)$$

$$x^2 - 50x + 600 = 0$$

$$x = \frac{-(-50) \pm \sqrt{100}}{2 \cdot 1}$$

$$x = \frac{50 \pm 10}{2}$$

Portanto o retângulo

deve ter $30 \times 20 \text{ m}$.

$$x' = \frac{60}{2} = 30$$

$$x'' = \frac{40}{2} = 20$$