

# Resoluções das atividades de Matemática

## Capítulo 3 Teorema da Bissetriz Interna

$$\begin{aligned} \overline{01} \quad \frac{x}{6} &= \frac{y}{4} & 3 + y &= 5 \\ & & y &= 5 - 3 \\ \frac{x}{6} &= \frac{5 - x}{4} & y &= 2 \\ 4x &= 30 - 6x & \text{Então, } \overline{BD} &= 3 \text{ cm e } \overline{DC} = 2 \text{ cm} \\ 10x &= 30 \\ x &= 3 \end{aligned}$$

$$\begin{aligned} \overline{02} \quad \frac{x}{12} &= \frac{8}{x} \Rightarrow x^2 = 96 \\ x &= \sqrt{96} \Rightarrow x = \sqrt{2^2 \cdot 2^2 \cdot 2 \cdot 3} = 4\sqrt{6} \end{aligned}$$

$$\begin{aligned} \overline{03} \quad \text{a) } \frac{x+8}{6} &= \frac{x}{4} & \overline{AC} &= x = 16 \\ 6x &= 4x + 32 & \overline{AB} &= x + 8 = 16 + 8 = 24 \\ 2x &= 32 \\ x &= 16 \end{aligned}$$

$$\begin{aligned} \text{b) } \frac{2x}{3} &= \frac{x+5}{4} & \overline{AC} &= x + 5 = 3 + 5 = 8 \\ 8x &= 3x + 15 & \overline{AB} &= 2x = 2 \cdot 3 = 6 \\ 5x &= 15 \\ x &= 3 \end{aligned}$$

$$\begin{aligned} \overline{04} \quad \frac{4}{2} &= \frac{5}{x} \\ 4x &= 10 \\ x &= 2,5 \end{aligned}$$