

Tarefa básica

Áreas de quadriláteros e triângulos.

$$\textcircled{1} \text{ a) } AP = \frac{36}{100} = \underline{\underline{0,09 \text{ m}^2}}$$

$$\begin{aligned} \text{b) } A &= l^2 \\ 0,09 &= l^2 \\ l &= \sqrt{0,09} \\ l &= 0,3 \end{aligned}$$

$$\begin{aligned} P &= l + l + l + l \\ P &= 0,3 + 0,3 + 0,3 + 0,3 \\ P &= 0,6 + 0,6 \\ P &= \underline{\underline{1,2 \text{ m}}} \end{aligned}$$

$$\textcircled{2} \quad \begin{array}{c} x \\ \square \\ x \end{array} \quad \begin{array}{c} x \\ \square \\ x \end{array}$$
$$A = x^2$$

$$\begin{array}{c} y \\ \square \\ y \end{array}$$
$$A = y^2$$

$$\begin{aligned} y^2 &= 2x^2 \\ y &= \sqrt{2x^2} \end{aligned}$$

$$\underline{\underline{y = x\sqrt{2}}}$$

alternativa "D"

$$\textcircled{3} \quad \begin{aligned} A &= 15 \\ b &= 10 \end{aligned}$$

$$\frac{b \cdot h}{2} = 15$$

$$\frac{10 \cdot h}{2} = 15$$

$$5h = 15$$

$$h = \frac{15}{5}$$

$$\underline{\underline{h = 3}}$$

alternativa "D"

$$(4) A' = x \cdot (x+3)$$

$$A'' = x+1(x+4)$$

$$x(x+3)+16 = x+1(x+4)$$

$$x^2 + 3x + 16 = x^2 + 4x + x + 4$$

$$x^2 + 3x - x^2 - 4x - x = 4 - 16$$

$$+3x - 4x - x = -12$$

$$A'' = 6 + 1(6+4)$$

$$3x - 5x = -12$$

$$A'' = 7 \cdot (10)$$

$$-2x = -12$$

$$A'' = 7 \cdot 10$$

$$-2x + 12 = 0$$

$$\boxed{A'' = 70 \text{ m}^2}$$

$$x = \frac{-12}{-2}$$

$$x = 6$$

$$(5) x^2 + 1^2 = 2^2$$

$$x^2 + 1 = 4$$

$$x^2 = 4 - 1$$

$$x^2 = 3$$

$$x = \sqrt{3}$$

$$AA = \frac{b \cdot h}{2}$$

$$AA = \frac{2 \cdot \sqrt{3}}{2}$$

$$\boxed{AA = \sqrt{3}}$$

alternativa "B"

$$(6) A_1 = 2,5 \cdot 6,0$$

$$A_2 = 1,0 \cdot 4,8$$

$$3,5 - 2,5 = 1,0$$

$$A_1 = 15,0$$

$$A_2 = 4,8$$

$$6,0 - 1,2 = 4,8$$

A2

$$A_3 = 4,0 \cdot 5,6$$

$$A_{\text{total}} = 15,0 + 4,8 + 22,4$$

$$4,8 + 0,8 = 5,6$$

A3

$$A_3 = 22,4$$

$$A_{\text{total}} = 42,2 \text{ m}^2$$

alternativa "E"

$$\textcircled{4} A = (B+b) \cdot h/2$$

$$36 = (2x+x) \cdot h/2$$

$$36 = 3x \cdot h/2$$

$$36 \cdot 2 = 3x \cdot h$$

$$72 = 3x$$

$$h$$

$$3x = \frac{72}{h}$$

$$x = \frac{72}{h} \cdot \left(\frac{h}{3} \right)$$

$$x = \frac{72}{3h}$$

$$A_{ret} = x \cdot h$$

$$A_{ret} = \frac{72}{3h} \cdot h$$

$$A_{ret} = 24h \text{ m}^2$$

alternativa "E"

$$\textcircled{8} A_l = \frac{D \cdot d}{2}$$

$$A_l = \frac{6 \cdot 2}{2}$$

$$A_l = 6$$

$$A_t = \frac{b \cdot h}{2}$$

$$A_t = \frac{6 \cdot 4}{2}$$

$$A_t = \frac{24}{2}$$

$$A_t = 12$$

$$\frac{6^3}{12} = \frac{2^3}{4} = \frac{1}{2}$$

alternativa "D"

$$\textcircled{9} A_q = b \cdot h$$

$$48 = 4x \cdot 3x$$

$$48 = 12x^2$$

$$48 = x^2$$

$$12$$

$$x = \sqrt{4}$$

$$x = 2$$

$$A_1 = \frac{6 \cdot 6}{2} = \frac{36}{2} = 18$$

$$A_2 = \frac{8 \cdot 2}{2} = \frac{16}{2} = 8$$

$$A_q = 48 - 18 - 8$$

$$A_q = 22$$

alternativa "E"

$$(10) \left(\frac{AD}{AB} \right)^2 = \frac{Am}{Am}$$

$$\left(\frac{AD}{8} \right)^2 = \frac{1/2 Am}{Am}$$

$$\frac{AD^2}{64} \times \frac{1}{2}$$

$$2AD^2 = 64$$

$$AD^2 = \frac{64}{2}$$

$$AD^2 = 32$$

$$AD = \sqrt{32}$$

$$\Delta AD = \sqrt{2^2 \cdot 2^2 \cdot 2}$$

$$AD = 2\sqrt{2^2 \cdot 2}$$

$$AD = 2 \cdot 2 \sqrt{2}$$

$$AD = 4\sqrt{2}$$

alternative "A"

$$\begin{array}{r|l} 32 & 2 \\ 16 & 2 \} 2^2 \\ 8 & 2 \\ 4 & 2 \} 2^3 \\ 2 & 2 \\ 1 & 1 \end{array}$$

$$(11) \frac{S_{AMN}}{S_{ABC}} = K^2$$

$$\frac{S_{AMN}}{96} = \left(\frac{x}{2x} \right)^2$$

$$\frac{S_{AMN}}{9} = \frac{1}{4}$$

$$S_{AMN} = 24 \text{ m}^2$$

$$ABMNC = ABC - AMN$$

$$ABMNC = 96 - 24$$

$$ABMNC = 72 \text{ m}^2$$