Áreas de Quadriláteros e Triângulos - CT 11317

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1) $400 \cdot x^2 = 36$

$x^2 = \frac{36}{400}$

$x^2 = 0,09$

$x = \sqrt{0,09}$

$x = 0,3$

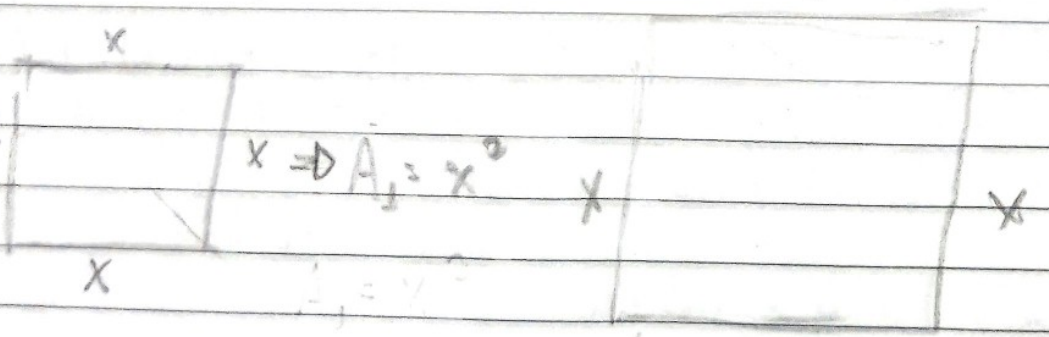
A)

$0,3^2 = 0,09\ m^2$

b)

$0,3 \cdot 4 = 1,2\ m$

2)



$\Rightarrow A_1 = x^2$

$A_2 = 2A_1 \therefore y^2 = 2x^2$

$A_2 = x^2$

$y = x\sqrt{2}$

3)

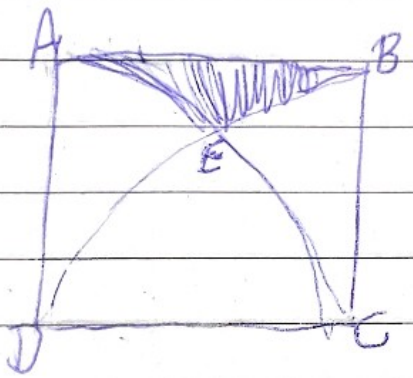
$$\frac{10 \cdot h}{2} = 15$$

$$10 \cdot h = 30$$

$$h = \frac{30}{10}$$

$$h = 3$$

c)



A - EDC

$$A = 2^2 = 4$$

A - DCE (equilátero)

$$\frac{l^2\sqrt{3}}{4} = \frac{2^2\sqrt{3}}{4} = \frac{4\sqrt{3}}{4} = \sqrt{3}.$$

8)

$$\Delta FGH = \frac{1}{4}$$

Altura $\Delta FGH = 1$

Altura $\Delta ABJ = 4$

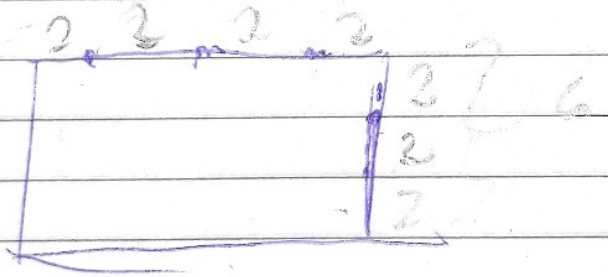
$$FGHJ = 2 \cdot \Delta FGH$$

$$FGHJ = 2 \cdot \frac{1}{4}$$

$$FGHJ : \frac{2}{2} : 2 = \frac{1}{2}$$

$$FGHJ = 4 : \frac{1}{2}$$

9)



$$48 - \left(\frac{6 \times 6}{2} + \frac{8 \cdot 2}{2}\right)$$

$$48 - (18 + 8)$$

$$48 - 26$$

$$22$$

101

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

$$ABC = \frac{7 \cdot 6}{2}$$

$$ABC = 21$$

$$ADE = \frac{21}{2}$$

$$ADE = 10,5$$

$$\frac{AD}{AB} = \frac{DE}{BC}$$

$$7 \cdot DE = 6 \cdot AD$$

$$DB = \frac{6AD}{7}$$

$$A = \frac{AD \cdot DE}{2}$$

$$AD \cdot DE = 21$$

$$AD \cdot \frac{(6AD)}{7} = 21$$

$$6AD^2 = 21 \cdot 7$$

$$AD^2 = \frac{147}{6}$$

$$AD = \frac{\sqrt{49}}{\sqrt{2}}$$

$$AD = \frac{7}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$$

$$AD = \frac{7\sqrt{2}}{2}$$

11) Semelhança AMN ~ ABC

$\frac{1}{2}BC$ $\qquad \frac{\Delta AMN}{\Delta ABC} = \frac{1}{4}$

$\Delta AMN = \frac{1}{4}\Delta ABC$

$X = BMNC$

$\Delta ABC = X + \Delta AMN$

$X = \Delta ABC - \Delta AMN$

$X = 96 - \frac{1}{4}(96)$

$X = 96 - 24$

$X = 72$