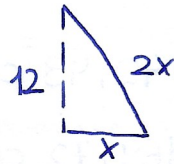
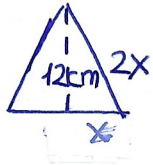


Ejercicio 1



$$(2x)^2 = x^2 + 12^2$$

$$4x^2 = x^2 + 144$$

$$4x^2 - x^2 = 144$$

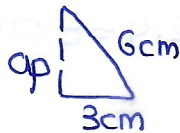
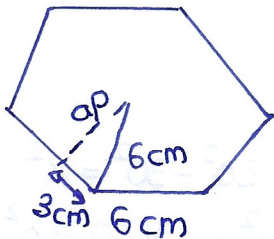
$$3x^2 = 144$$

$$x^2 = \frac{144}{3} = 48 \Rightarrow x = \sqrt{48} = 6,93 \text{ cm}$$

$$\text{lado} = 2 \cdot 6,93 = 13,86 \text{ cm}$$

$$A = \frac{13,86 \cdot 12}{2} = 83,16 \text{ cm}^2$$

Ejercicio 2



$$6^2 = 3^2 + ap^2$$

$$6^2 - 3^2 = ap^2$$

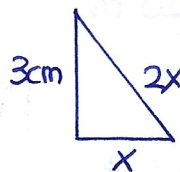
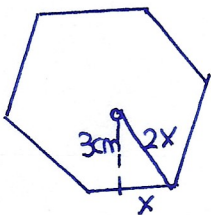
$$27 = ap^2$$

$$ap = \sqrt{27} = 5,2 \text{ cm}$$

$$p = 6 \cdot 6 = 36 \text{ cm}$$

$$A = \frac{p \cdot ap}{2} = \frac{36 \cdot 5,2}{2} = 93,6 \text{ cm}^2$$

Ejercicio 3



$$(2x)^2 = x^2 + 3^2$$

$$4x^2 - x^2 = 9$$

$$3x^2 = 9 \Rightarrow x^2 = \frac{9}{3} \Rightarrow x^2 = 3$$

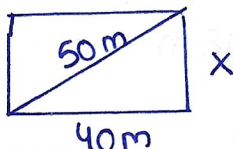
$$x = \sqrt{3} \Rightarrow x = 1,73 \text{ cm}$$

$$l = 2 \cdot 1,73 = 3,46 \text{ cm}$$

$$p = 6 \cdot 3,46 = 20,76 \text{ cm}$$

$$A = \frac{20,76 \cdot 3}{2} = 31,14 \text{ cm}^2$$

Ejercicio 4



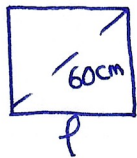
$$50^2 = x^2 + 40^2 \Rightarrow 50^2 - 40^2 = x^2 \Rightarrow x^2 = 2500 - 1600$$

$$x^2 = 900 \Rightarrow x = \sqrt{900} \Rightarrow x = 30 \text{ m}$$

$$p = 2 \cdot 40 + 2 \cdot 30 = 80 + 60 = 140 \text{ m}$$

$$A = 40 \cdot 30 = 1200 \text{ m}^2$$

Ejercicio 5



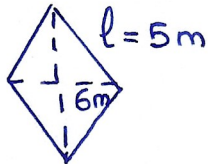
$$60^2 = l^2 + l^2 \Rightarrow 3600 = 2l^2 \Rightarrow l^2 = \frac{3600}{2} \Rightarrow$$

$$l^2 = 1800 \Rightarrow l = 42,43 \text{ cm}$$

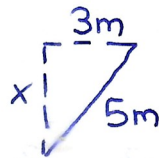
$$p = 4 \cdot 42,43 = 169,72 \text{ cm}$$

$$A = l^2 = 1800 \text{ cm}^2$$

Ejercicio 6



$$p = 4 \cdot l \Rightarrow 20 = 4 \cdot l \Rightarrow l = \frac{20}{4} \Rightarrow l = 5 \text{ m}$$



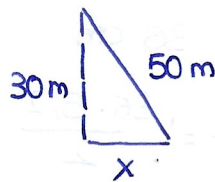
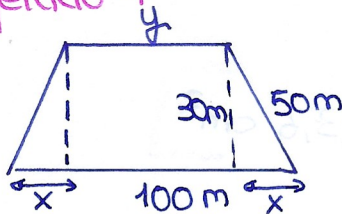
$$5^2 = 3^2 + x^2 \Rightarrow x^2 = 5^2 - 3^2 \Rightarrow x^2 = 25 - 9$$

$$x^2 = 16 \Rightarrow x = \sqrt{16} \Rightarrow x = 4 \text{ m}$$

$$D = 2 \cdot 4 = 8 \text{ m}$$

$$A = \frac{D \cdot d}{2} = \frac{8 \cdot 6}{2} = 24 \text{ m}^2$$

Ejercicio 7



$$50^2 = 30^2 + x^2 \Rightarrow 50^2 - 30^2 = x^2$$

$$\Rightarrow 2500 - 900 = x^2 \Rightarrow 1600 = x^2$$

$$x = \sqrt{1600} \Rightarrow x = 40 \text{ m}$$

$$y = 100 - 40 - 40 = 20 \text{ m}$$

a) $p = 100 + 20 + 50 + 50 = 220 \text{ m}$

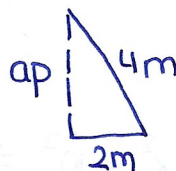
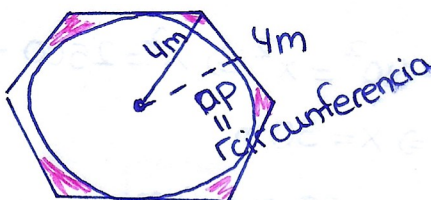
La valla mide 220 m

b) $A = \frac{(100 + 20) \cdot 30}{2} = 1800 \text{ m}^2$

$$P_{\text{recio}} = 1800 \cdot 20,50 = 36900 \text{ €}$$

La finca cuesta 36900 €

Ejercicio 8



$$4^2 = ap^2 + 2^2$$

$$4^2 - 2^2 = ap^2 \Rightarrow 16 - 4 = ap^2$$

$$ap^2 = 12 \Rightarrow ap = \sqrt{12} \Rightarrow$$

$$ap = 3,46 \text{ m}$$

Hexágono $p = 4 \cdot 6 = 24 \text{ m}$

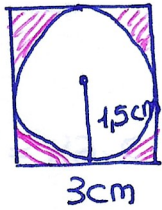
$$A = \frac{24 \cdot 3,46}{2} = 41,52 \text{ m}^2$$

$$A_{\text{sombreada}} = 41,52 - 37,61 = 3,91 \text{ m}^2$$

Círculo

$$A = \pi \cdot 3,46^2 = 37,61 \text{ m}^2$$

b)

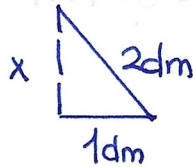
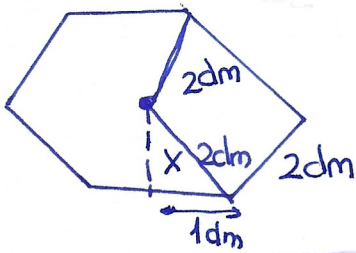


$$A_{\text{cuadrado}} = 3^2 = 9 \text{ cm}^2$$

$$A_{\text{círculo}} = \pi \cdot 1,5^2 = 7,07 \text{ cm}^2$$

$$A_{\text{sombreada}} = 9 - 7,07 = 1,93 \text{ cm}^2$$

Ejercicio 9



$$2^2 = 1^2 + x^2$$

$$x^2 = 2^2 - 1^2$$

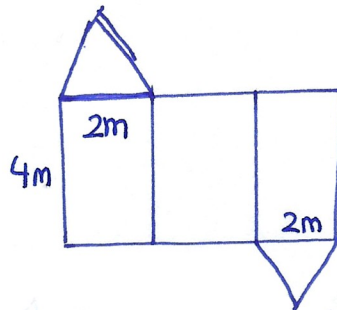
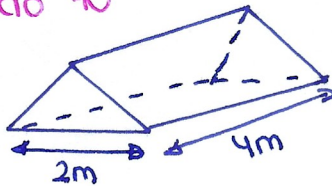
$$x^2 = 4 - 1 \Rightarrow x^2 = 3 \Rightarrow x = \sqrt{3} \Rightarrow$$

$$x = 1,73 \text{ dm}$$

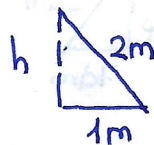
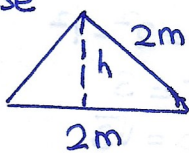
$$p = 2 \cdot 6 = 12 \text{ dm}$$

$$A = \frac{12 \cdot 1,73}{2} = 10,38 \text{ dm}^2$$

Ejercicio 10



Base



$$2^2 = 1^2 + h^2$$

$$4 - 1 = h^2 \Rightarrow$$

$$h^2 = 3 \Rightarrow h = \sqrt{3} \Rightarrow h = 1,73 \text{ m}$$

$$AB = \frac{2 \cdot 1,73}{2} = 1,73 \text{ m}^2$$

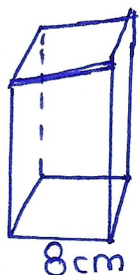
Alateral

$$AL = 4 \cdot 2 \cdot 3 = 24 \text{ m}^2$$

$$AT = AL + 2 \cdot AB = 24 + 2 \cdot 1,73 = 27,46 \text{ m}^2$$

Se necesitan 27,46 m² de tela.

Ejercicio 11



$$A_T = 200 \text{ cm}^2$$

Base

$$A_B = 8^2 = 64 \text{ cm}^2$$

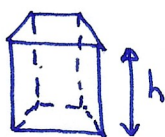
$$A_{\text{LATERAL}} = A_T - 2A_B = 200 - 2 \cdot 64 = 72 \text{ cm}^2$$

$$A_{\text{lateral}} = 8 \cdot 4 \cdot h$$

$$72 = 8 \cdot 4 \cdot h \Rightarrow h = \frac{72}{32} = 2,25 \text{ cm}$$

La altura es 2,25 cm

Ejercicio 12



$$A_B = 60 \text{ cm}^2$$

$$V = 30 \text{ l} = 30 \text{ dm}^3 = 30000 \text{ cm}^3$$

$$V = A_B \cdot h$$

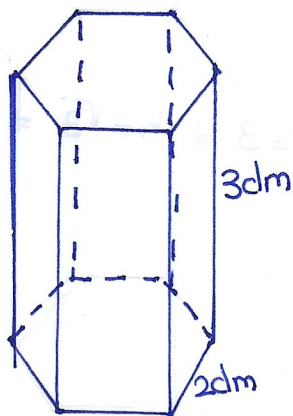
$$30000 = 60 \cdot h \Rightarrow h = \frac{30000}{60} = 500 \text{ cm}$$

La altura es 500 cm.

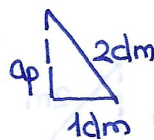
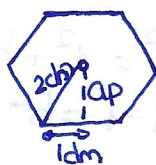
Ejercicio 13

NO

Ejercicio 14



Base



$$2^2 = 1^2 + ap^2$$

$$ap^2 = 2^2 - 1^2$$

$$ap^2 = 3$$

$$ap = \sqrt{3}$$

$$ap = 1,73 \text{ dm}$$

$$p = 2 \cdot 6 = 12 \text{ dm}$$

$$A_B = \frac{12 \cdot 1,73}{2} = 10,38 \text{ dm}^2$$

Lateral

$$A_L = 2 \cdot 3 \cdot 6 = 36 \text{ dm}^2$$

$$A_{\text{TOTAL}} = 2 \cdot 10,38 + 36 = 56,76 \text{ dm}^2$$

$$\text{Volumen} = A_B \cdot h = 10,38 \cdot 3 = 31,14 \text{ dm}^3$$