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Asignatura: Modelamiento de Sistemas

N° codele: 081
Curso: 2° Ancla

Pregunta n° 1:

	G1	
	C	NC
H	2	4
M	$50\% = 2$	$\frac{6}{3} = 2$
	4	6

Total = 10

	G2	
	C	NC
H	6	$\frac{1}{4}T = 5$
M	4	5
	10	10

Total = 20

$$G2 = 2 \cdot G1$$

$$G2 = 2 \cdot 10$$

$$G2 = 20$$

a.

	G1	
	C	NC
H	2	4
M	2	2
T	4	6

	G2	
	C	NC
H	6	5
M	4	5
T	10	10

b. $\frac{\%MC}{(6)} \rightarrow TC_{G1+G2}$
 (14)

$$14 \rightarrow 100\%$$

$$6 \rightarrow x = 42,86\%$$

c. $\frac{x}{x} TNC = TC$
 $(16) \quad (14)$

$$16 : 14$$

$$8 : 7$$

d. $\frac{\%HNC}{(9)} \rightarrow TM_{G1+G2}$
 (20)

$$20 \rightarrow 100\%$$

$$9 \rightarrow x = 45\%$$

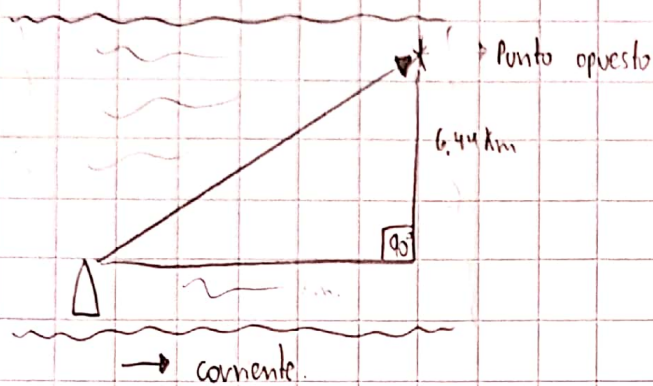
e. $\frac{x}{x} MNC : TM_{G1+G2}$
 $(7) \quad (13)$

$$7 : 13$$

Pregunta n° 2:

$$V_0 \text{ agua tranquila} = 6,44 \text{ km/h}$$

$$V_c = 3,22 \text{ km/h}$$

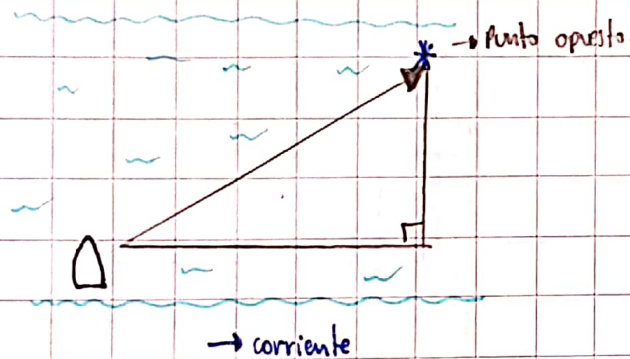


$$V_{B_{AT}} = \frac{d}{t}$$

$$V_0 = V_{B_{AT}} + V_c$$

$$6,44 = \frac{6,44 \text{ km}}{1 \text{ h}}$$

a.



$$t_g = \frac{6,44}{3,22}$$

Dirección $063,43^\circ$

$$t_g = 2$$

$$\text{arctg} = 63,43^\circ$$

b.

$$h^2 = c^2 + c^2$$

$$h^2 = 6,44^2 + 3,22^2$$

$$h^2 = 51,842 / \sqrt{}$$

$$h = 7,2 \text{ km/h}$$

$$V_0 = \frac{d}{t}$$

$$7,2 = \frac{6,44}{t}$$

$$t = 0,89 \text{ hrs.} = 53 \text{ min } 40 \text{ seg}$$

c.

$$V = V_{B_{AT}} + V_c$$

$$V = 6,44 + 3,22$$

$$V = 9,66$$

$$9,66 = \frac{d}{t}$$

$$9,66 = \frac{3,22}{t}$$

$$t = 0,33 \text{ hrs.}$$

$$V = V_{B_{AT}} - V_c$$

$$V = 6,44 - 3,22$$

$$V = 3,22$$

$$3,22 = \frac{d}{t}$$

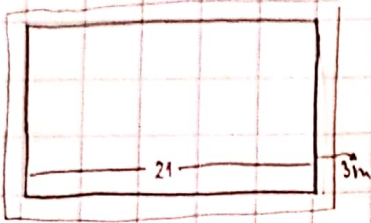
$$3,22 = \frac{3,22}{t}$$

$$t = 1 \text{ hrs.}$$

$$t_T = 0,33 + 1$$

$$t_T = 1,33 \text{ hrs.} = 1 \text{ h } 20 \text{ min.}$$

Pregunta n° 3:



10 m² x galón y se debe pintar 2 veces.

$$L_c = 21 \text{ m.}$$

$$L : A = 7 : 3$$

$$L = 7A/3$$

$$21 = 7A/3$$

$$A = 9.$$

$$L_c = 21 \text{ m}$$

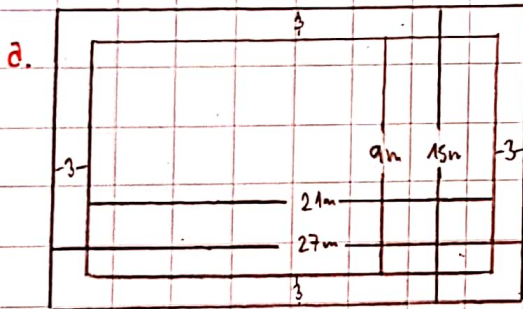
$$A_c = 9 \text{ m.}$$

$$L_{cf} = 27 \text{ m.}$$

$$A_{cf} = 15 \text{ m.}$$

$$L_{cf} = \text{Largo cancha} + \text{Franja}$$

$$A_{cf} = \text{Ancho cancha} + \text{Franja}$$



b. Área CF - Área c = Área pintada.

$$(L_{cf} \cdot A_{cf}) - (L_c \cdot A_c) = A_p$$

$$(27 \cdot 15) - (21 \cdot 9) = A_p$$

$$405 - 189 = A_p$$

$$216 \text{ m}^2 = A_p$$

c. 10 m² → 1 galón

216 m² → x = 21,6 ≈ 22 galones x 1 mano.

$$22 \cdot 2 = 44 \text{ galones}$$