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

$$14 \rightarrow 100\%$$

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

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

$$16 : 14$$

$$8 : 7$$

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

$$20 \rightarrow 100\%$$

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

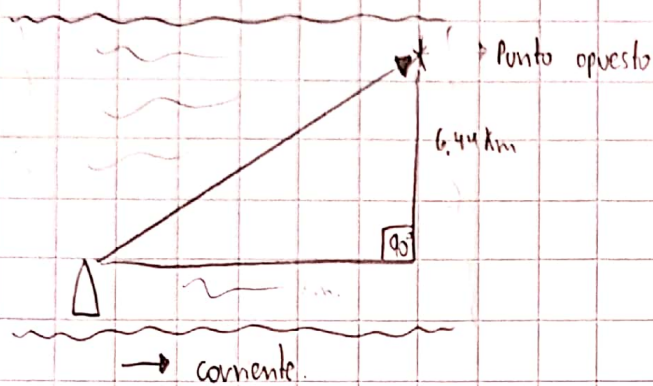
e.  $\frac{x}{x} \frac{MNC}{(7)} : TM \frac{G1+G2}{(13)}$

$$7 : 13$$

## Pregunta n° 2:

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

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

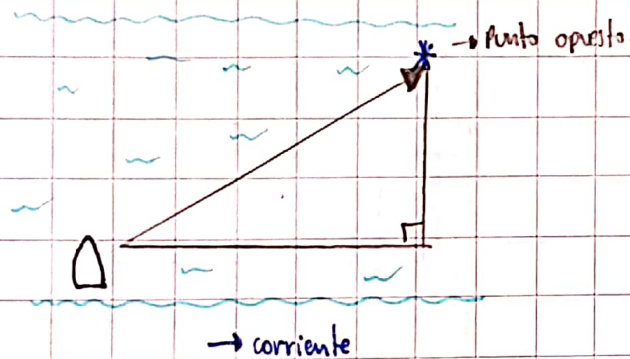


$$V_{0_{\text{AT}}} = \frac{d}{t}$$

$$V_0 = V_{0_{\text{AT}}} + V_c$$

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

a.



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

Dirección  $063,43^\circ$

$$t_g = 2$$

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

b.

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

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

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

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

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

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

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

c.

$$V = V_{0_{\text{AT}}} + V_c$$

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

$$V = 9,66$$

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

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

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

$$V = V_{0_{\text{AT}}} - V_c$$

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

$$V = 3,22$$

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

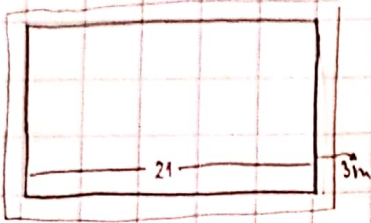
$$3,22 = \frac{3,22}{t}$$

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

$$t_T = 0,33 + 1$$

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

Pregunta n° 3:



10 m<sup>2</sup> x galón y se debe pintar 2 veces.

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

$$L : A = 7 : 3$$

$$L = 7A/3$$

$$21 = 7A/3$$

$$A = 9.$$

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

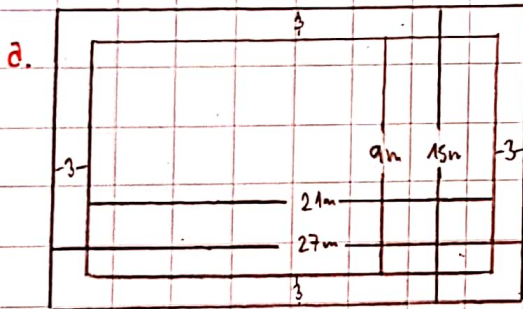
$$A_c = 9 \text{ m.}$$

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

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

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

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



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 m<sup>2</sup> → 1 galón

216 m<sup>2</sup> → x = 21,6 ≈ 22 galones x 1 mano.

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