

PRUEBA 1

D. Umaña M.

PREGUNTA 1:

a) GRUPO 1:

	CONDUCTORES	No CONDUCTORES	
Mujeres	(2)	(2) ←	
Hombres	2	(4)	
	4	$6 \cdot \frac{1}{3}$	6
			TOTAL 10

GRUPO 2:

	CONDUCTORES	No CONDUCTORES	
Mujeres	(4)	5 ←	
Hombres	6	$4 \cdot 20 = (8)$	
	10	10	20

$2(10) = 2 \cdot 10 = 20$

b) $M_{COND} - \text{TOTAL CONDUC}$

$$\begin{array}{rcl} 6 & - & x\% \\ 14 & - & 100\% \end{array} \quad x = 42,86\%$$

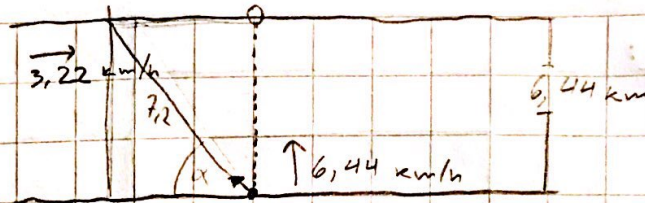
c) $\frac{\text{TOTAL } N_{CONDUC}}{\text{TOTAL CONDUC}} = \frac{16}{14} = \frac{8}{7}$

d) $H_{NCONDUC} - \text{GR. 2}$

$$\begin{array}{rcl} 9 & - & x \\ 20 & - & 100\% \end{array} \quad x = 45\%$$

e) $\frac{M_{NCONDUC}}{\text{TOTAL MUJERES}} = \frac{7}{13}$

PREGUNTA 2:



$$V_B = 6,44 \text{ km/h}$$

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

a)

El bote debe apuntar hacia la izquierda, así, la corriente lo llevará y podrá terminar justo frente al lugar de inicio:

$$v = \sqrt{3,22^2 + 6,44^2}$$

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

b) Eje Y: $v = \frac{d}{t} \rightarrow t = \frac{d}{v} = \frac{7,2}{6,44} = 1,12 \text{ horas}$

c) $V_B + V_c = \frac{3,22 \text{ km}}{t_B}$

$$t_B = \frac{3,22 \text{ [km]}}{V_B + V_c}$$

$$t_B = \frac{3,22 \text{ [km]}}{6,44 \text{ km/h} + 3,22 \text{ km/h}}$$

$$t_B = 0,3 \text{ [horas]}$$

$$V_B - V_c = \frac{3,22 \text{ km/h}}{t_{\text{subida}}}$$

$$t_{\text{subida}} = \frac{3,22 \text{ km/h}}{V_B - V_c}$$

$$t_{\text{subida}} = \frac{3,22}{6,44 - 3,22}$$

$$t_{\text{subida}} = 1 \text{ hora}$$

$$T_{\text{TOTAL}} = t_B + t_s$$

$$T_{\text{TOTAL}} = 0,3 \text{ h} + 1 \text{ h}$$

$$T_{\text{TOTAL}} = 1,3 \text{ [horas]} \text{ en remar 3,22 km río abajo y regresar}$$

$$1 \text{ h} - 60 \text{ min}$$

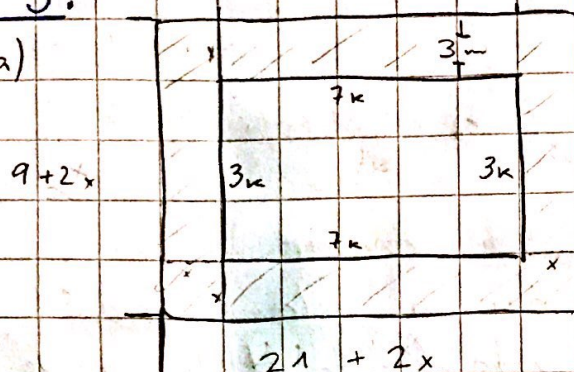
$$0,3 - x$$

☐ LUN ☐ MAR ☐ MIE ☐ JUE ☐ VIE ☐ SAB ☐ DOM

FECHA:

PREGUNTA 3:

a)



$$\frac{\text{LARGO}}{\text{ANCHO}} = \frac{7}{3}$$

$$7x = 21$$

$$x = 3$$

b)

$$\begin{aligned} A_{\text{TOTAL}} &= (9 + 2 \cdot 3) (21 + 2 \cdot 3) \\ &= 15 \cdot 27 \\ &= 405 \text{ m}^2 \end{aligned}$$

$$x = 3 \text{ m}$$

$$\begin{aligned} A_{\square} &= 21 \cdot 9 \\ &= 189 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} \text{Area BORDE} &= A_{\text{TOTAL}} - A_{\text{CANCHA}} \\ &= 405 \text{ m}^2 - 189 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} \text{Area BORDE} &= 216 \text{ m}^2 \\ \text{PINTADA} \end{aligned}$$

c) 1 galon - 10 m² x = 21,6 galones - 1 mano

x - 216 m²

21,6 x 2 manos

43,2 galones //