Cd. Lt. Zegers

Prueba Modelamiento de Sistemas

Pregunta nº 1:

a)

	Grupo 1		Total 1	Grupo 2		Total 2
	Hombres	Mujeres		hombres	Mujeres	
Conducen	2	2	4	6	4	10
No conducen	4	2	6	5	5	10
			10			20

b) $\frac{6}{14} \cdot 100 = 42{,}9\%$

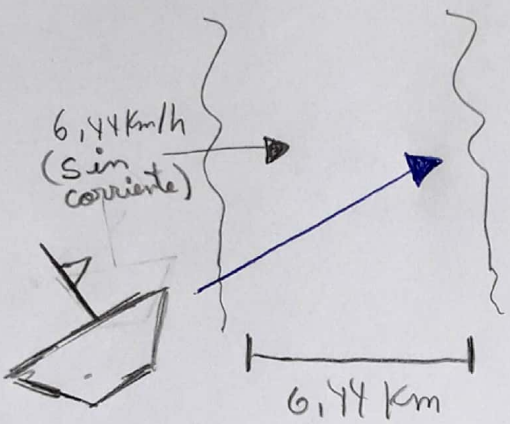
c) $16 : 14 = 8 : 7$

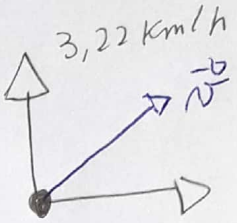
D) $\frac{4}{20} \cdot 100 = 20\%$

e) $7 : 13$

Pregunta n°2:

a)





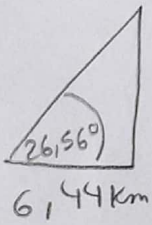
$$(\vec{v})^2 = (3,22)^2 + (6,44)^2$$

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

b)

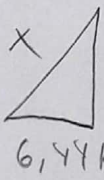
$$\text{sen}\,\theta = \frac{3,22}{6,44}$$

$$\theta = 26,56° //$$



$$\text{Tg}\,(26,56) = \frac{X}{6,44}$$

$$X = 3,22 \text{ Km}$$

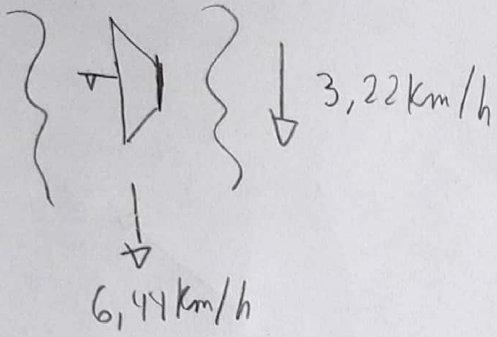


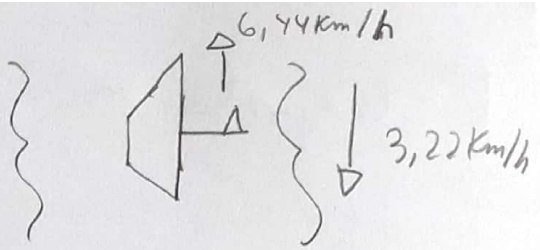
$$(X)^2 = (3,22)^2 + (6,44)^2$$

$$\boxed{X = 7,2 \text{ Km}}$$

$$t = \frac{d}{v} = \frac{7,2 \text{ Km}}{7,2 \text{ Km/h}} = 1 \text{ h} //$$

c)





$$\begin{array}{r} 6,44 \\ +\ 3,22 \\ \hline 9,66\ \text{Km/h} \end{array} \qquad t = \frac{3,22\ \text{Km}}{9,66\ \text{Km/h}} \qquad t = 20\ \text{min}$$

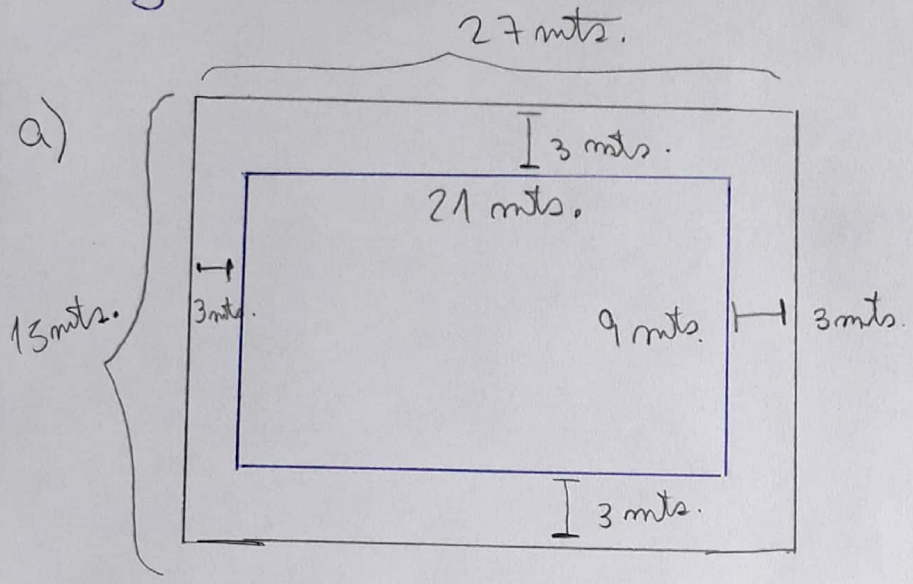
O

$$\begin{array}{r} 6,44 \\ -\ 3,22 \\ \hline 3,22\ \text{Km/h} \end{array} \qquad t = \frac{3,22\ \text{Km}}{3,22\ \frac{\text{Km}}{\text{h}}} \qquad t = 1\ \text{hora}$$

Ir y Volver se demorará 1 hora y 20 min.

Pregunta n° 3:

a)



$\frac{7}{3} : \frac{21}{x}$

$x = 9$ mts.

b) Área del rectángulo = $27 m \cdot 15 m = 405 m^2$

Área sin pintar = $21 m \cdot 9 m = 189 m^2$

Pintar: $216 m^2$ //

c) $1 gal \longrightarrow 10 m^2$

$x \longrightarrow 216 m^2$

$x = 21{,}6 \cdot 2$ (2 manos) $= 43{,}2$ galones //

∴ Se requieren 43,2 galones para pintar $216 m^2$.