

# UDS

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FISICA

24/05/2021



$$4. \quad t = d/v$$

$$900 \text{ km/hr} =$$

$$250 \text{ m/s}$$

$$t = 200 \text{ m} / 250 \text{ m/s}$$

$$t = 0.8 \text{ sec}$$

$$5. \quad D = v \cdot t$$

$$v) \quad 40 \text{ km/h} = 60 \text{ km/h} \quad 80 \text{ km/h}$$

500 km

$$t) \quad 7 \text{ h} \quad 5 \text{ h} \quad 3 \text{ h} \quad 5 \text{ h} \quad 5 \text{ h}$$

$$40 \text{ km} + 60 \text{ km} + 80 \text{ km} = \underline{\underline{180 \text{ km}}}$$

Alfredo

06.

$$t = d/v$$

$$v = 90 \text{ mill/hr} \times \frac{1609.34}{3600} \times \frac{1 \text{ hora}}{3600 \text{ s}} = 40.23 \text{ m/s}$$

$$d = 18 \text{ m}$$

$$t = ? \text{ s}$$

$$t = 18 \text{ m} / 40.23 \text{ m/s}$$

$$t = 0.44742229 \text{ seg}$$

7.

$$T_{1x} = T_1 \cos 50^\circ = \quad \Sigma F_x \Rightarrow T_1 \cos 50^\circ - 0 - T_2 = 0$$

$$T_{1y} = T_1 \sin 50^\circ = \quad \Sigma F_x \Rightarrow T_1 \cos(50^\circ) - T_2 = 0$$

$$\Sigma F_x = 0$$

$$\Sigma F_y \Rightarrow T_1 \sin(50^\circ) - 679.14 \text{ N} = 0$$

$$\Sigma F_y = -679.14 \text{ N}$$

$$\Sigma F_y \Rightarrow T_1 \sin(50^\circ) = 679.14 \text{ N}$$

$$\Sigma F_y \Rightarrow T_1 = \frac{679.14}{\sin(50^\circ)}$$

$$T_{2x} = -T_2$$

$$\sin(50^\circ)$$

$$T_{2y} = 0$$

$$\Sigma F_y \Rightarrow T_1 = 886.55 \text{ N}$$

$$T_1 \cos(50^\circ) - T_2 = 0$$

$$(886.55 \text{ N}) \cos 50^\circ - T_2 = 0$$

$$569.86 - T_2 = 0$$

$$T_2 = 569.86 \text{ N}$$

$$T_1 = 886.55 \text{ N}$$

$$T_2 = 569.86 \text{ N}$$

