



Mi Universidad

Ensayo

Nombre del Alumno: Aguilar López Jorge Alberto

Nombre del tema: Estática

Parcial: I

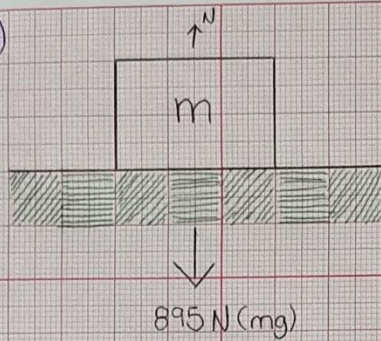
Nombre de la Materia: Estática para la arquitectura

Nombre del profesor: Pedro Alberto García López

Nombre de la Licenciatura: Arquitectura

Cuatrimestre: 3

①



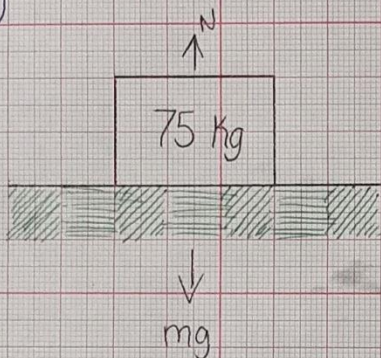
Encontrar la masa y comprobar Equilibrio

$$895 \text{ N} / 9.81 = 91.23 \text{ Kg}$$

$$\sum F_r = 0$$

$$895 \text{ N} - 895 \text{ N} = 0$$

②



Comprobar equilibrio

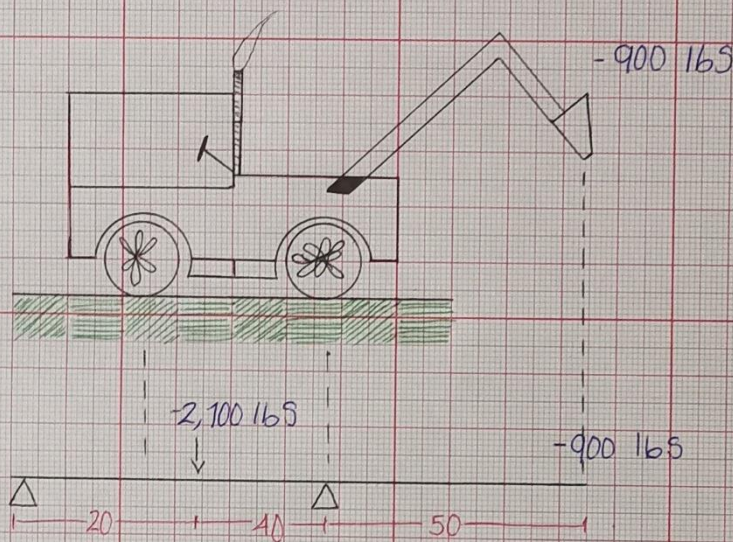
$$N = 735 \quad \sum F = 0$$

$$mg = 75$$

$$75 \times 9.81 = 735$$

$$735 - 735 = 0$$

Un tractor de 2100 libras se utiliza para levantar 900 libras de grava.
 Determina la reacción de cada una de sus llantas.



$$\sum M = [(-2,100 \text{ lbs}) 20p] + [(-900 \text{ lbs}) 110p] + [(RB) 60p] = 0$$

$$-42,000 \frac{\text{lbs}}{p} - 99,000 \frac{\text{lbs}}{p} + RB - 60 = 0$$

$$141,000 \frac{\text{lbs}}{p} + RB - 60 = 0$$

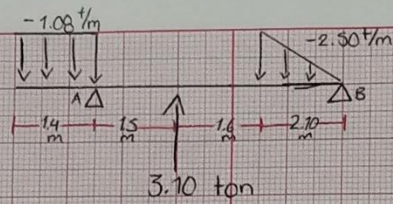
$$RB = \frac{141,000}{60} = 2,350$$

$$\sum F = RA = -2100 - 900 + 2,350 = 0$$

$$-650 = 650$$

$$650 - 2100 - 900 + 2350 = 0$$

lite
MBA



$$\frac{W \cdot L}{2}$$

$$P_1 = 1.8 \text{ t/m} (1.40 \text{ m})$$

$$P_1 = 1.512 \text{ ton}$$

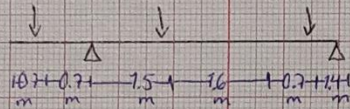
$$U_p = 1.40 / 2 = 0.70 \text{ m}$$

$$P_2 = 2.50 (2.10 \text{ m}) =$$

$$P_2 = 2.625 \text{ ton}$$

$$U_p = 2.10 / 3 = 0.70 \text{ m}$$

$$R_B = 0.82 \text{ ton}$$



$$P = W \cdot C$$

$$U_p = L/2$$

$$\sum M = 0$$

$$(-1.512 \text{ t} \cdot 0.7) + (3.10 \cdot 1.5) + (2.625 \text{ ton} \cdot 3.80 \text{ m}) + R_B \cdot 5.20 \text{ m}$$

$$(-1.0584) + (4.65 \text{ t} \cdot \text{m}) + (9.95 \text{ t} \cdot \text{m}) + (R_B \cdot 5.20)$$

$$R_B = \frac{4.269 \text{ t} \cdot \text{m}}{5.20} = 0.82 \text{ ton}$$

$$\sum F_y = 0$$

$$-1.512 + R_A + 3.10 \text{ ton} - 2.625 \text{ ton} + 0.82 \text{ ton} = 0$$

$$R_A - 0.212 = 0$$

$$R_A = 0.212 \text{ ton}$$

$$\sum F_y \text{ CO} \rightarrow 1.512 + R_A + 3.10 - 2.625 + 0.82 = 0$$

$$\sum F_y = 0$$

SEGURIDAD..

PM1

masco