UDS

Mi Universidad

Nombre del Alumno José Amílcar Trejo hidalgo

Nombre del tema

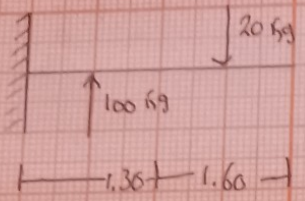
Parcial 3

Nombre de la materia: análisis de materiales

Nombre del profesor : Pedro Alberto

Nombre de la Licenciatura arquitectura

Cuatrimestre



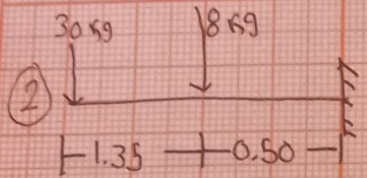
$1.30 \times 100 = 130$

$2.9 \times 20 = 58$

$130\ kg.m - 58\ kg.m = 0$

$MA = 72\ kg.m$

$MA = 72\ kg.m$ /

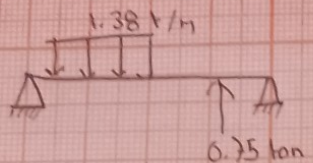


$MA = (-1.8\ kg.50m) + (30\ kg.1.35\ m)$

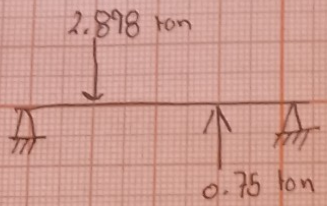
$MA = (-9 kg.m) + (55.5\ kg.m)$

$MA = 64.5\ kg.m = 0$

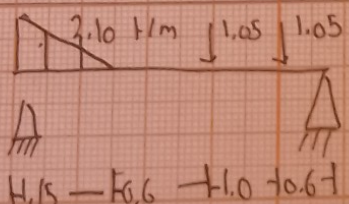
$MA = 64.5\ kg.m = 0$ /



P = w.C
OP = L/2
P = 1.38 . 2.10 m
P = 2.898 ton /
OP = 2.10 /2 = 105 ton



$$MA = (2.898m \cdot 1.05 + (0.75 \cdot 2.6)$$
$$3.042 - 1.95 = 1.092$$

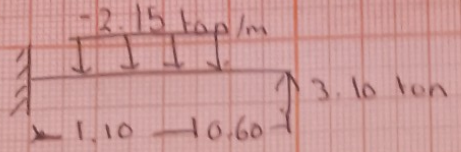


$$P = \frac{w \cdot L}{2}$$

$$P = \frac{2.10\ t/m \cdot 1.15}{2} = 241.5\ /$$

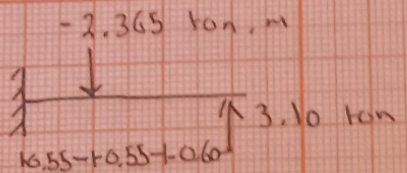
$$MA = \frac{[1.207 + 0.383) - (1.05 \cdot 1.75) - (1.05 \cdot 2.75)}{-0.462 - 1.837 - 2.887}$$

$$MA = -5.186\ t.m\ /$$



P = w.c → 2.15 ton . 1.10 m = 2.365 ton . m

UP = L/2 → 1.10 m/2 = 0.55



$\Sigma m = 0$

$RA = (-2.365 \text{ ton} \cdot m \cdot 6.55 m) + (3.10 - 1.70 m) = 0$

$RA = 3.969 \text{ t.m}$

$$\sum M_B = 0$$

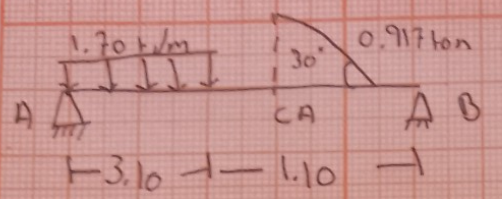
$$(-8.924 \cdot 2.025) + (-1.5 \cdot 3) + (48 \cdot 4.05) = 0$$

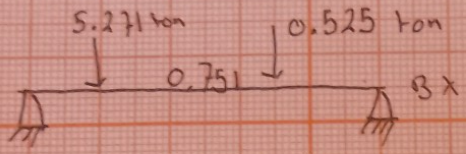
$$-17.0586 + 3.15 = 26.2086 + 4.05 = 4.787 \text{ ton}$$

$$RB = 4.789 \text{ ton} \uparrow$$

$$RA = -8.424 - 1.05 + 4.989 = -4.485 \text{ ton/m}$$

$$RA = 4.485 \text{ ton} \downarrow$$





$P = w \cdot L = (1.70\ t/m)(3.10\ m)$

$P = 5.27$ ton

$OP = 1.55$ m

$2Co = \text{Sen } 35°\,(0.917\ \text{ton}) = \underline{0.525\ \text{ton}}$

$CA \cdot \cos 35°\,(0.917\ \text{ton}) = \underline{0.751\ \text{ton}}$

$\Sigma Fx = 0$

$0.751\ \text{ton} - Bx = 0$

$Bx = 0.751$ ton

$\Sigma Fy = 0$

$Ay = 5.27\ \text{ton} - 0.525\ \text{ton} + By = 0$

$Ay = 5.795\ \text{ton} + By = 0$

ΣmB

$-0.525\ \text{ton}\,(0.5\ m) - 5.27\ \text{ton}\,(3.15\ m) + Ay\,(4.7\ m) = 0$

$-0.2625 - 16.005 + Ay \cdot 4.7 = 0$

$-16.863\ \text{ton} + Ay \cdot 4.7\ m = 0$

$Ay = \dfrac{16.863\ \text{ton} \cdot m}{4.7\ m}$

$\boxed{Ay = 3.587}$ ton

$By = 5.795\ \text{ton} - Ay$

$By = 5.795\ \text{ton} - 3.587\ \text{ton}$

$By = 2.208$ ton

$By = 0.751$ ton

$Ay = 3.587$ ton

$By = 2.208$ ton