

# Mi Universidad

PLATAFORMA

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*ARQUITECTURA*

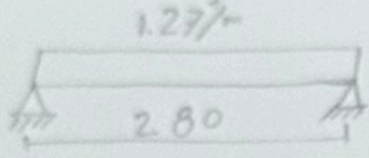
*ANALISIS DE ESTRUCTURAS*

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*Cuatrimestre 5°*

$$\sum F_x = 0$$

$$\sum M = 0$$



$$P = w(L) = 1.27(2.80) = 3.55$$

$$UP = L/2 = 2.80/2 = 1.40$$

$$\sum M = 0$$

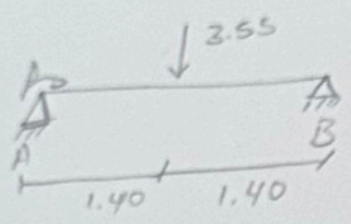
$$3.55(1.40) + R_B(2.80) = 0$$

$$-4.97 + R_B(2.80) = 0$$

$$R = B = \frac{4.97}{2.80} = 1.77 \text{ ton}$$

$$\sum F_x = R_A - 3.55 + 1.77$$

$$\sum F_x = R_A - 1.78 \text{ ton} = 0 \Rightarrow R_A = 1.78 \text{ ton}$$



$$M_0 = \frac{WL^2}{8}$$

$M_u$  = a la suma del momento más su factor de Seguridad.

$$F_{c \text{ sistema}} = 1.3 \times 10^8$$

$$\frac{q+1}{F_y} \cdot F''_c$$

$$F''_c = 136 \text{ kg/cm}^2$$

$$M_u = 1.24(130000) = 161200$$

$$U.F.R. = 0.90$$

$$M.F.R. = 0.80$$

$$\frac{M_u}{b \cdot d^2 \cdot F''_c} x^2 + 1 \rightarrow$$

$$q = \sqrt{\frac{M_u}{F_r \cdot b \cdot d^2 \cdot F''_c}} x^2 + 1$$

$$\frac{161,200}{b \cdot d^2 \cdot F''_c} x^2 + 1$$

$$0.15(0.16)^2(136 \text{ kg/cm}^2)$$

$$(.15)(0.0256)(136) = 0.470016$$

$$\frac{00}{016} x^2 + 1$$

$$0479 = 585.633 x^2 + 1 = 1174.266$$



