

MATERIA: RESISTENCIA DE MATERIALES

ACTIVIDAD: ACTIVIDAD

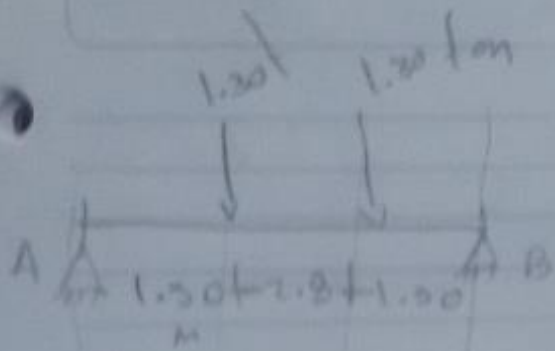
DOCENTE: ARQ. PEDRO ALBERTO GARCIA
LOPEZ

ALUMNO: GRISEYDA JOACHIN VELAZQUEZ

GRADO: 4° CUATRIMESTRE

GRUPO: A





$$R_A = R_B = F$$

$$R_A = R_B = 1.30 \text{ ton}$$

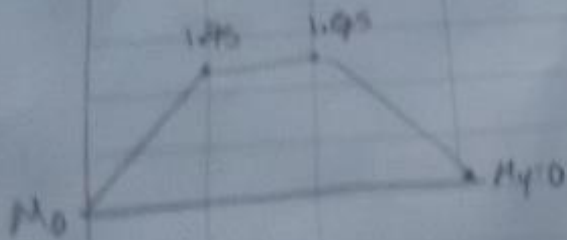
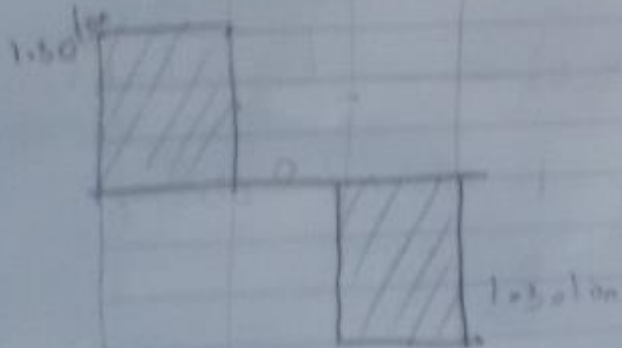
$$M = F \cdot z$$

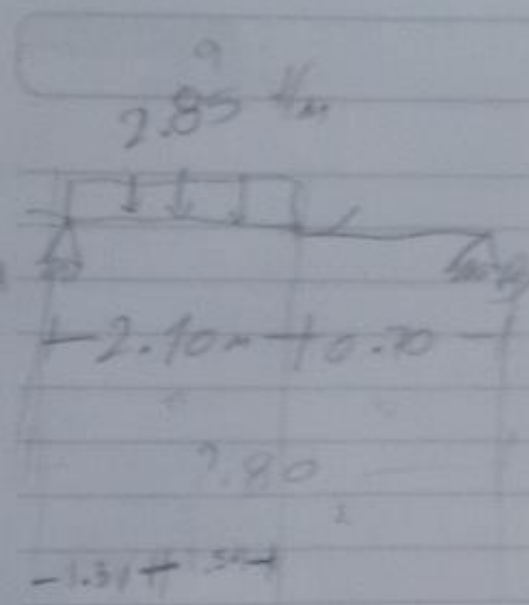
$$M = 0$$

$$M_2 = 0 + 1.30 \text{ t/m} \times 1.50 \text{ m} = 1.95$$

$$M_3 = 1.95 + (2.80 \times 0) = 1.95$$

$$M_4 = 1.95 + (1.50 \times -1.30 \text{ t/m}) = 0$$

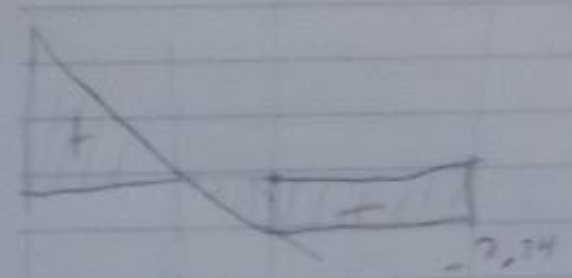




$$R_2 = \frac{2.80 \text{ kN/m} (2.10 \text{ m}) (2.80 \text{ kN/m})}{2 (2.80)} = 3.90$$

$$= \frac{4.73}{3.6} = 3.74 \text{ kN}$$

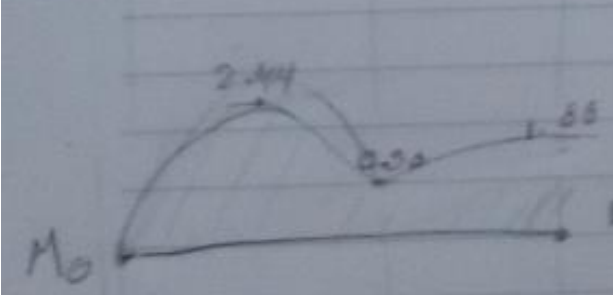
$$R_1 = \frac{2.80 \text{ kN} (2.10 \text{ m})^2}{2 (2.80)} = \frac{12.56}{5.6} = 2.24$$



$$R_1 = 3.74 \text{ kN} \quad R_2 = 2.24 \text{ kN}$$

$$x = \frac{a(b)}{2} = \frac{(2.10)(2.80 + 0.70)}{2 (2.80)}$$

$$= 1.31$$



$$M_1 = 0$$

$$M_2 = 0 + \frac{3.74 \text{ kN} (1.31 \text{ m})}{2} = 2.44 \text{ kNm}$$

$$M_3 = 2.44 \text{ kNm} + \frac{(1.31 \text{ kN} - 2.24 \text{ kN}) (2.14 \text{ m})}{2} = 0.50 \text{ kNm}$$

$$M_4 = 0.50 + (0.70 \times 2.24 \text{ kN}) = 1.06 \text{ kNm}$$