

$$15 \times 30 = 4.50$$

$$n < 15 \text{ B.m}$$

$$4.20 < 4.50$$

$$B_{max} = 0.40$$

$$B_{max} = 0.40 \times 0.30$$

$$B_{max} = 0.12 + 0.30$$

$$B_{max} = 0.42 = 0.40 \text{ m}$$

$$\frac{17 \text{ cm}^2}{8}$$

$$A = (0.30 \times 0.40) \times 0.01 = 12 \text{ cm}^2$$

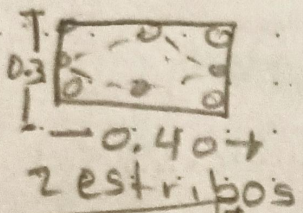
$$A = 1.5$$

$$4 \# 4 = (1.27 \times 9) = 5.08 \text{ cm}^2$$

$$4 \# 5 = (1.98 \times 4) = 7.92 \text{ cm}^2$$

$$\frac{13.00 \text{ cm}^2}{30 \times 45}$$

11. / 8



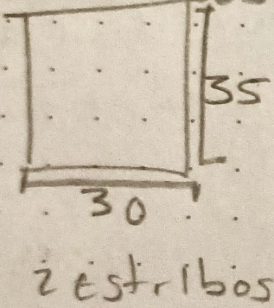
$$A(0.30 \times 0.35) \times 0.01 = 10.5 \text{ cm}^2$$

$$A = 1.3125$$

$$4 \# 5 = (1.98 \times 4) = 7.92 \text{ cm}^2$$

$$4 \# 3 = (0.71 \times 4) = 2.84 \text{ cm}^2$$

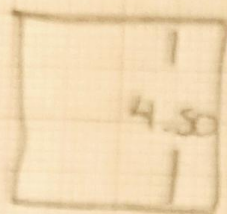
$$10.76 \text{ cm}^2$$



3-5  
4-5

~~29~~ 06  
①

JESSICA



Trabe

Acero Min  $b \cdot P / \max$  0.00235  
 Acero Max  $b \cdot P / \max$  0.01143

$$h = L / 12$$

$$B = 0.5$$

$$h = 4.80 / 12 = 0.4$$

$$B = 0.5 (0.4) = 0.2$$

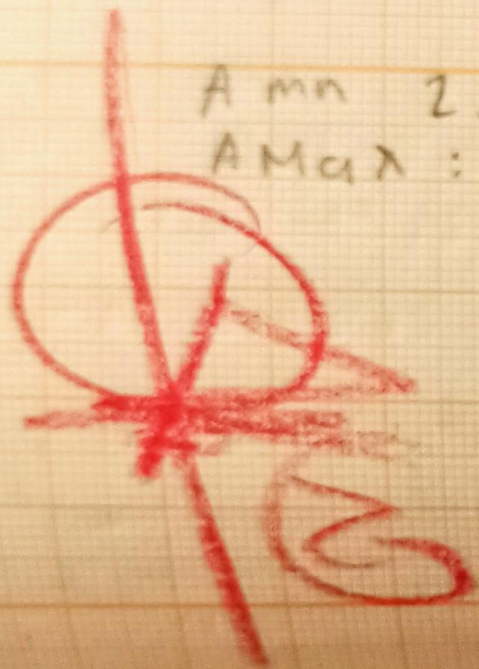
$A_{mn} = 2.828$   
 $A_{Max} = 13.716$

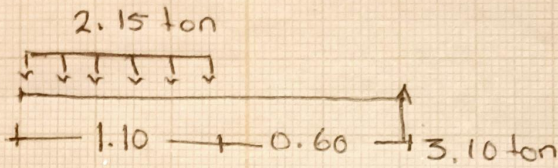
$$h = 4.80 / 12 = 0.4$$

$$B = 0.5 (0.5) = 0.2$$

$$40 \cdot 30 \cdot 0.00235 = 0.00235$$

$$40 \cdot 30 \cdot 0.01143 = 13.716$$





$$W \times L \rightarrow 2.15 \text{ ton} \times 1.10 \text{ m} = 2.365$$

$$U_p = L/2 \rightarrow 1.10 / 2 = 0.55$$

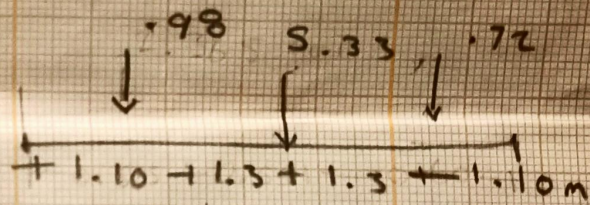
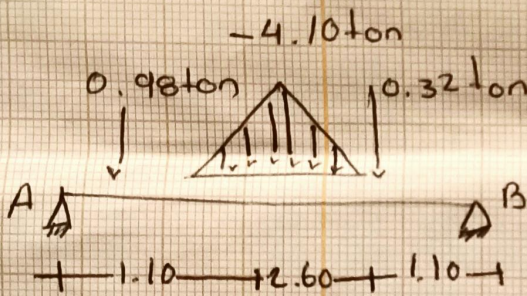
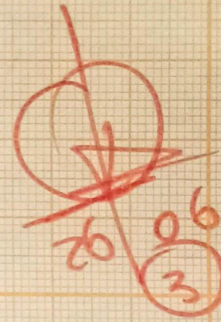
$$\downarrow 2.365$$

$$+0.55 + 0.55 + 0.60 +$$

$$\uparrow 3.10 \text{ ton}$$

$$(-2.365 \times 0.55) + (3.10 \text{ ton} \times 1.7) \quad (3.10 \text{ ton} \times 1.7 \text{ m})$$

$$-1.30075 + 5.27 = 3.96925 \text{ ton-m}$$



$$(-0.98 \times 1.10) + (-5.33 \times 2.4) + (-0.32 \times 3.7) + (R_B \times 4.8)$$

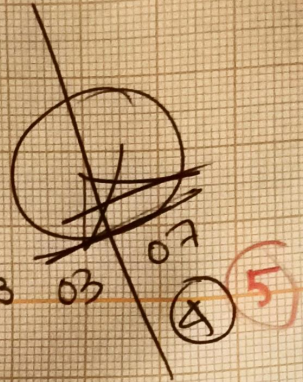
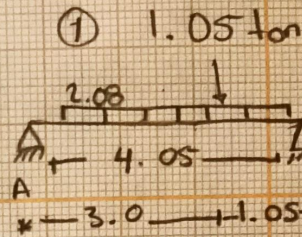
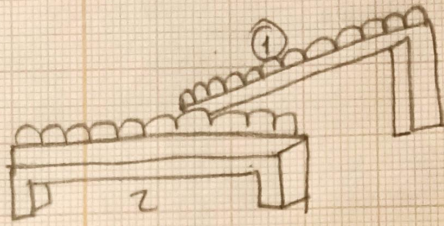
$$3.966 \text{ ton-m}$$

$$(-0.98 \cdot 1.10) + (-5.33 \cdot 2.4) + (-0.32 \cdot 3.7) + (R_B \cdot 4.8)$$

$$15.05 + R_B + 4.8$$

$$R_B = \frac{15.05}{4.8} = 3.136 \text{ ton}$$

$$M_A = R_B - 0.98 - 5.33 - 0.32 + 3.136 = -3.494 \text{ ton}$$



$$R_A = (-8.424 \cdot 2.025) + (-1.05 \times 3) + (R_B \cdot 4.05)$$

$$R_A = -17.05 - 3.15 + (R_B \cdot 4.05)$$

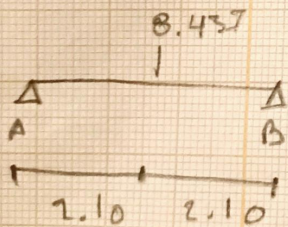
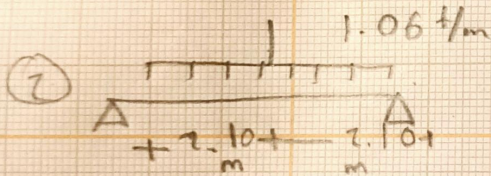
$$-17.05 - 3.15 + (R_B \cdot 4.05)$$

$$-20.2 + (R_B \cdot 4.05)$$

$$\frac{-20.2}{4.05} = +4.987 \text{ ton}$$

$$R_A = -8.424 - 1.05 + 4.987 = 4.487 \text{ ton}$$

$$4.487 - 8.424 - 1.03 + 4.987 = 0$$

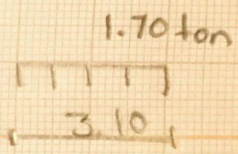
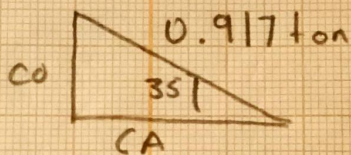
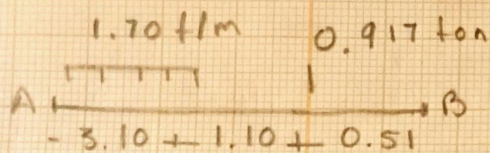


$$R_A = (8.937 \cdot 2.10) + (R_B \cdot 4.20)$$

$$R_A = 18.767 + (R_B \cdot 4.20)$$

$$R_A = \frac{18.767}{4.20} = 4.4683 \text{ ton}$$

$$R_A = -8.937 + 4.4683 = -4.468 \text{ ton}$$

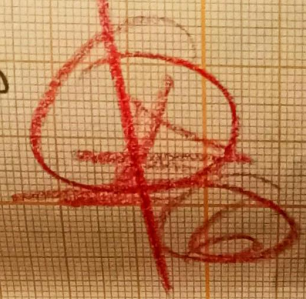
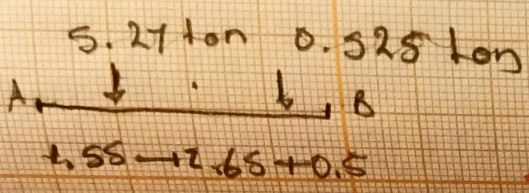


$$\sin \phi = \frac{CO}{M} = \frac{CO = 5 \text{ cm } \phi (11)}{\sin 35^\circ (0.917 \text{ ton})} = 0.525$$

$$\cos \phi = \frac{CA}{M} = \frac{CA = (\cos 35^\circ (0.917 \text{ ton}))}{0.75 \text{ m}} = 0.75 \text{ m}$$

$$W \cdot L = 1.70 \times 3.10 = 5.27 \text{ ton}$$

$$U_p = l/2 = 3.10/2 = 1.55 \text{ m}$$



$$M_A = (5.27 \text{ ton} \cdot 1.55) + (0.5259 \text{ ton} \cdot (4.21)) + (RB \cdot 4.7)$$

$$8.1685 \text{ ton} \cdot \text{m} + 2.20878 \text{ ton} \cdot \text{m} + RB \cdot 4.7$$

$$RB = 10.37728 \text{ ton} \cdot \text{m} + RB \cdot 4.7$$

$$RB = 2.2079 \text{ ton}$$

$$RA = -5.27 - 0.7802 + 2.2079 = \underline{\underline{3.8423 \text{ ton} = 0}}$$