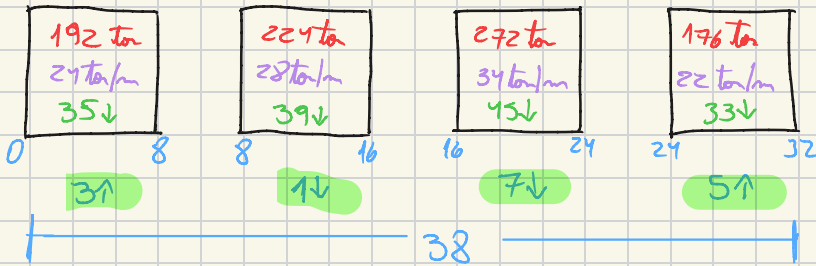




Pregunta 1



* Δ sin carga : 352

* Δ con carga : $192 + 224 + 272 + 176 + 352 = 1216$

• $\frac{\Delta}{\text{eslora}} = \frac{1216 \text{ ton}}{32 \text{ m}} = 38 \frac{\text{ton}}{\text{m}}$ con carga

• $\frac{\Delta \text{ sin carga}}{\text{eslora}} = \frac{352 \text{ ton}}{32 \text{ m}} = 11 \frac{\text{ton}}{\text{m}}$ sin carga

Carga por bodega

$192 / 8 = 24 \text{ ton/m} + 11 = 35$

$224 / 8 = 28 \text{ ton/m} + 11 = 39$

$272 / 8 = 34 \text{ ton/m} + 11 = 45$

$176 / 8 = 22 \text{ ton/m} + 11 = 33$

Diagrama de Carga

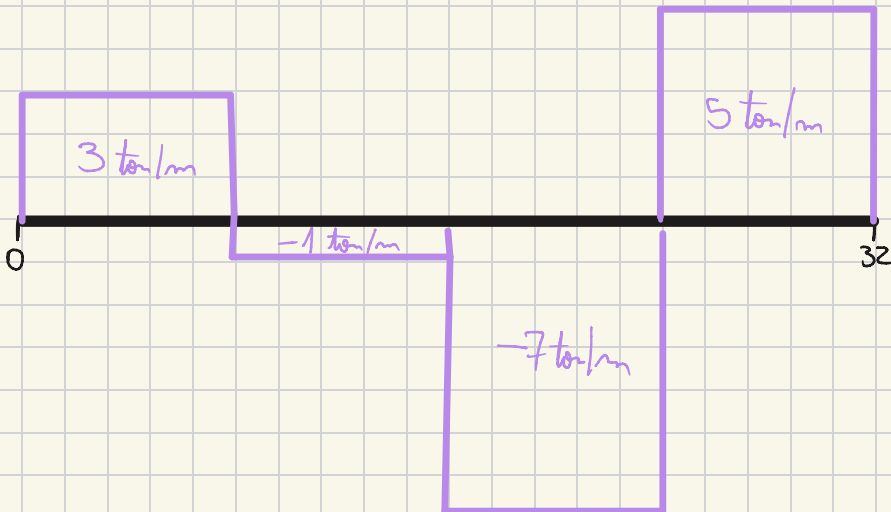
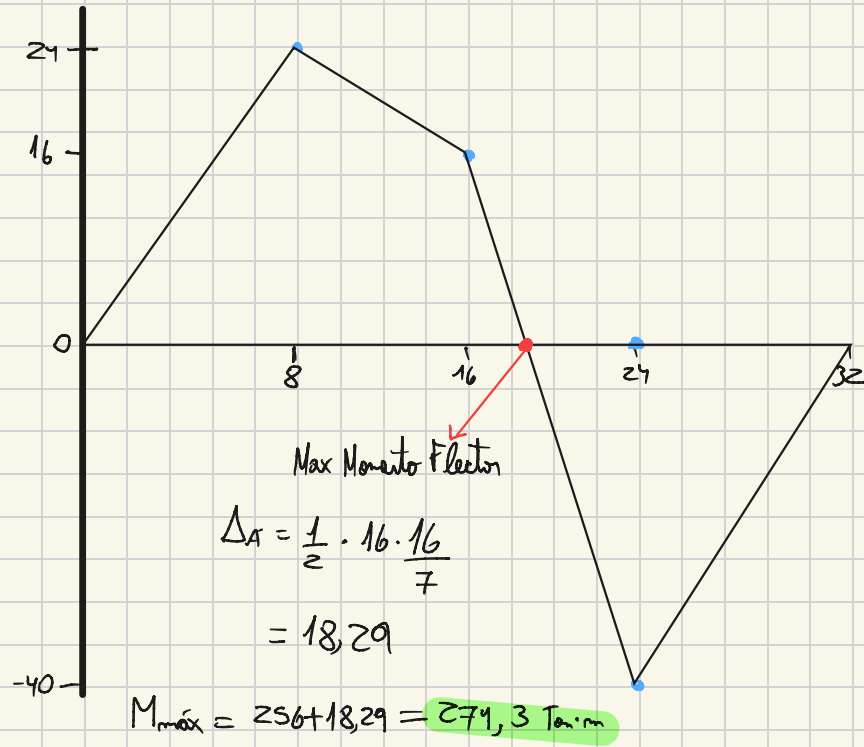


Diagrama de Cable



$$\Delta V = w \cdot \Delta x$$

$$\begin{aligned} 0 - 8 &\rightarrow 3 \cdot 8 = 24 - 0 = 24 \uparrow \\ 8 - 16 &\rightarrow -1 \cdot 8 = -8 = 24 - 8 = 16 \downarrow \\ 16 - 24 &\rightarrow -7 \cdot 8 = -56 = 16 - 56 = -40 \downarrow \\ 24 - 32 &\rightarrow 5 \cdot 8 = 40 = 40 - 40 = 0 \end{aligned}$$

Calculo Momento Flector

Tramos	
0-8	$\frac{0+24}{2} = 12 \text{ ton} \cdot 8 \text{ m} = 96 \text{ ton} \cdot \text{m}$
8-16	$\frac{24+16}{2} = 20 \text{ ton} \cdot 8 \text{ m} = 160 \text{ ton} \cdot \text{m} + 96 \text{ ton} \cdot \text{m} = 256 \text{ ton} \cdot \text{m}$
16-24	$\frac{16-40}{2} = -12 \text{ ton} \cdot 8 \text{ m} = -96 \text{ ton} \cdot \text{m} + 256 \text{ ton} \cdot \text{m} = 160 \text{ ton} \cdot \text{m}$
24-32	$\frac{-40+0}{2} = -20 \text{ ton} \cdot 8 \text{ m} = -160 \text{ ton} \cdot \text{m} + 160 \text{ ton} \cdot \text{m} = 0 \text{ ton} \cdot \text{m}$

Diagrama do Momento Flector

