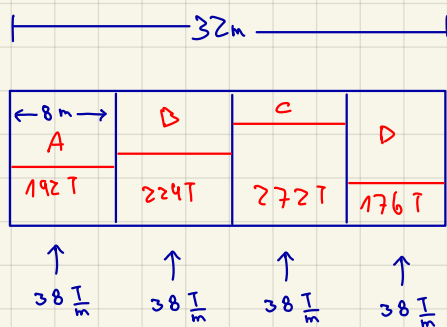


EJERCICIO 1



Desplazamiento gabarra: 352 T

Desplazamiento total: 1216 T

$$\frac{352 T}{32 m} = 11 \frac{T}{m} \downarrow \text{ (con barcaza vacía)}$$

$$\frac{1216 T}{32 m} = 38 \frac{T}{m} \uparrow \text{ (con barcaza cargada)}$$

$$A: 24 \frac{T}{m} + 11 \frac{T}{m} = 35 \frac{T}{m} \downarrow$$

$$B: 28 \frac{T}{m} + 11 \frac{T}{m} = 39 \frac{T}{m} \downarrow$$

$$C: 34 \frac{T}{m} + 11 \frac{T}{m} = 45 \frac{T}{m} \downarrow$$

$$D: 22 \frac{T}{m} + 11 \frac{T}{m} = 33 \frac{T}{m} \downarrow$$

$$\frac{192 T}{8 m} = 24 \frac{T}{m} \downarrow$$

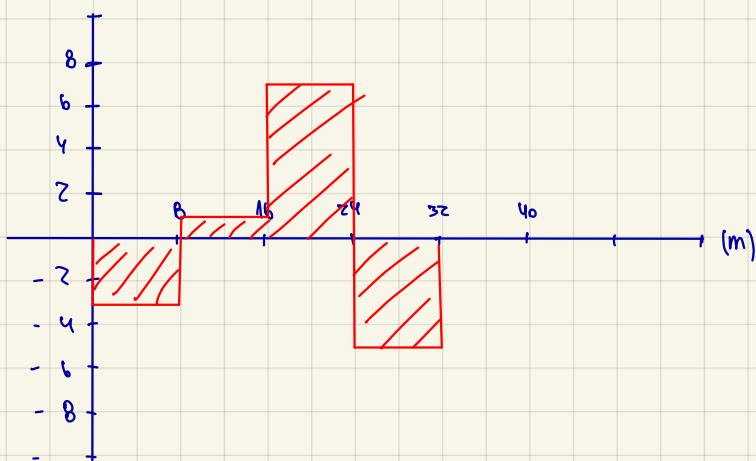
$$\frac{224 T}{8 m} = 28 \frac{T}{m} \downarrow$$

$$\frac{272 T}{8 m} = 34 \frac{T}{m} \downarrow$$

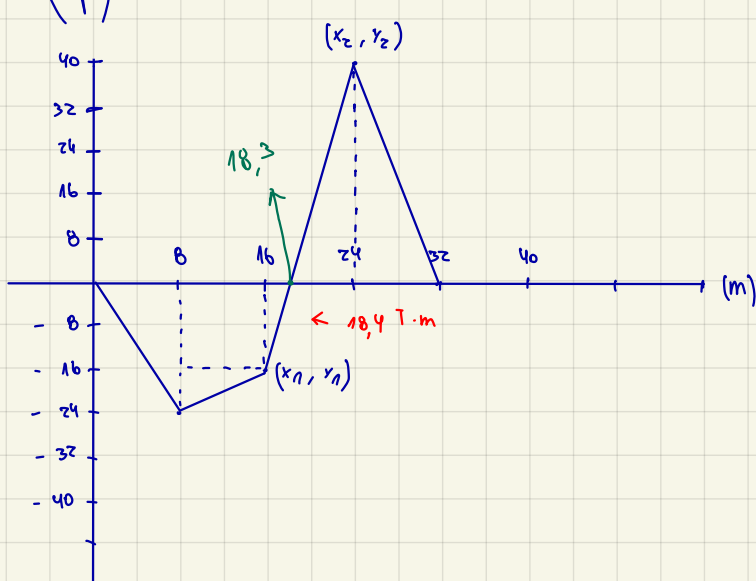
$$\frac{176 T}{8 m} = 22 \frac{T}{m} \downarrow$$

(por compartimentos)

(T/m) Diagrama de carga



(T) Diagrama de fuerza de corte



$$A: \left(-3 \frac{T}{m} \cdot 8 m\right) + 0 = -24 T$$

$$B: \left(7 \frac{T}{m} \cdot 8 m\right) + (-24 T) = -16 T$$

$$C: \left(-5 \frac{T}{m} \cdot 8 m\right) + (-16 T) = 40 T$$

$$D: \left(45 \frac{T}{m} \cdot 8 m\right) + 40 T = 0 T$$

Pendiente entre 16m y 24m

$$\frac{y^2 - y^1}{x^2 - x^1} = m$$

$$\frac{40 - (-16)}{24 - 16} = 7$$

$$y = mx + b$$

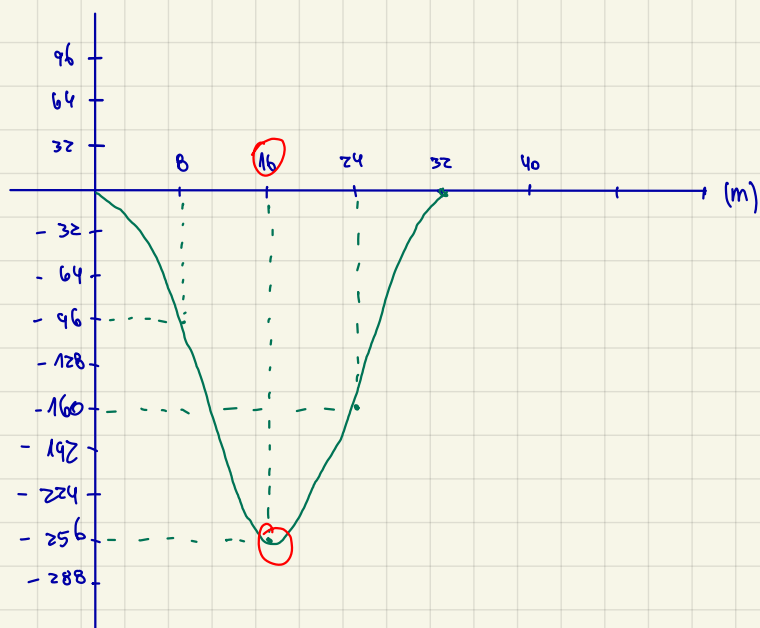
$$128 = 7x + b$$

↑
de GeoGebra

$$\frac{128}{7} = b \rightarrow b = 18,3 T \cdot m$$

Momento flector

(T.m)



compartimentos

$$(0 - 8) \Rightarrow \frac{8 \cdot -24}{2} + 0 = -96 \text{ Tm}$$

$$(8 - 16) \Rightarrow \left(8 \cdot -16\right) + \left(\frac{8 \cdot -8}{2}\right) - 96 = -256 \text{ Tm}$$

$$(16 - 24) \Rightarrow \left(\frac{2,3 \cdot -16}{2}\right) + \left(\frac{5,7 \cdot 40}{2}\right) - 256 = -160,4 \text{ Tm}$$

$$(24 - 32) \Rightarrow \left(\frac{8 \cdot 40}{2}\right) - 160,4 = -0,4 \text{ Tm} \approx \underline{0 \text{ Tm}}$$

* La gabiota se encuentra en **arribo** y su momento flector máximo se encuentra en el **2do mamparo (16m)**