

① Datos /

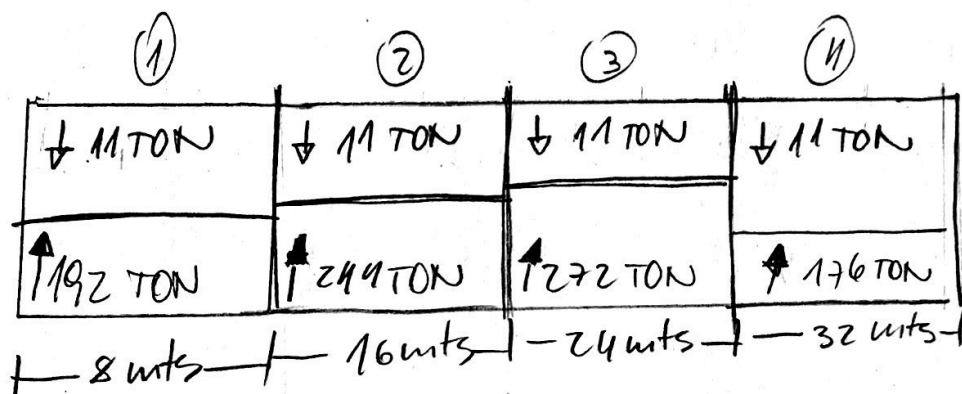


- 32 mts eslora
- 352 toneladas sin carga
- 4 compartimientos estancos

203
255
283
187

- Bodega 1 - 192 toneladas
 - Bodega 2 - 244 toneladas
 - Bodega 3 - 272 toneladas
 - Bodega 4 - 176 toneladas
- 884 toneladas

$$\Delta = \frac{352}{32} = 11 (T/m)$$



$$\begin{array}{r} 352 \text{ (sin carga)} \\ + 884 \text{ (cargas)} \\ \hline 1236 \text{ Ton} \end{array}$$

$$\frac{1236}{32} = 38,625 (T/m)$$

$$① = \left(-11(\tau/n) - \frac{192}{8} \left(\frac{\tau}{n} \right) \right) + 38,625 (\tau/n) = \underline{3,625 (\tau/n)}$$

$$② = \left(-11(\tau/n) - \frac{244}{8} \left(\frac{\tau}{n} \right) \right) + 38,625 (\tau/n) = \underline{-2,875 (\tau/n)}$$

$$③ = \left(-11(\tau/n) - \frac{272}{8} \left(\frac{\tau}{n} \right) \right) + 38,625 (\tau/n) = \underline{-6,375 (\tau/n)}$$

$$④ = \left(-11(\tau/n) - \frac{176}{8} \left(\frac{\tau}{n} \right) \right) + 38,625 (\tau/n) = \underline{5,625 (\tau/n)}$$

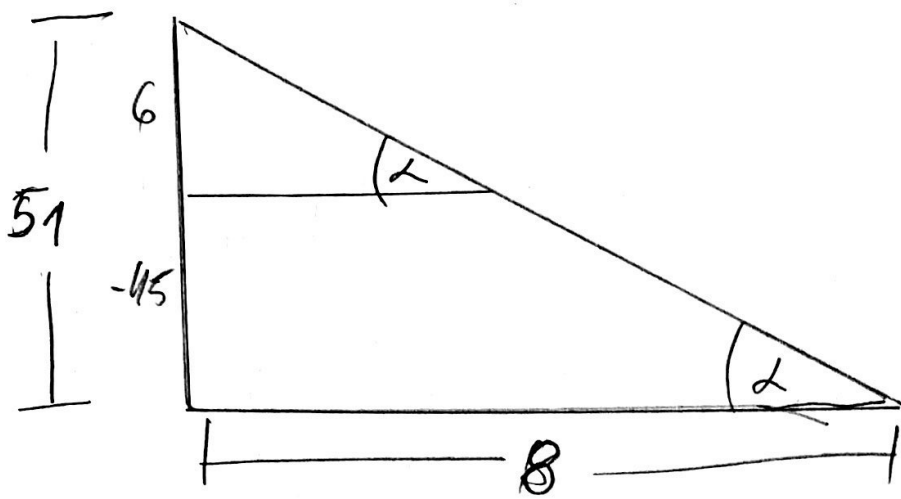
Fuerzas por sección

$$① = 8(n) \cdot 3,625 (\tau/n) = 29 (\tau/n)$$

$$② = 8(n) \cdot 0,75 (\tau/n) = 6 (\tau/n)$$

$$③ = 8(n) \cdot -6,35 + 6 (\tau/n) = -45 (\tau/n)$$

$$④ = 8(n) \cdot 5,625 - 45 (\tau/n) = 0 (\tau/n)$$



$$\tan(\alpha) = \frac{51}{8} = 6,375$$

$$\tan^{-1}(6,375) = 81,086 \approx 81^\circ$$

$$\tan(81) = \frac{6}{x} \quad x = \frac{6}{\tan(81)} = 0,950306642,$$

$$A_T = \left(\frac{29 \cdot 8}{2} \right) + \left(\frac{23 \cdot 8}{2} \right) + (6 \cdot 8) + \left(\frac{6 \cdot 0,950306642}{2} \right)$$

$$A_T = 258,85 \text{ (T/n)} \therefore \text{máximo momento flector}$$