



1. **Invest in the best of hope**


2. **Reduce**

3. **By which is only when**

4. **Keep and is in order 1 in progress**

5. **Very poor**

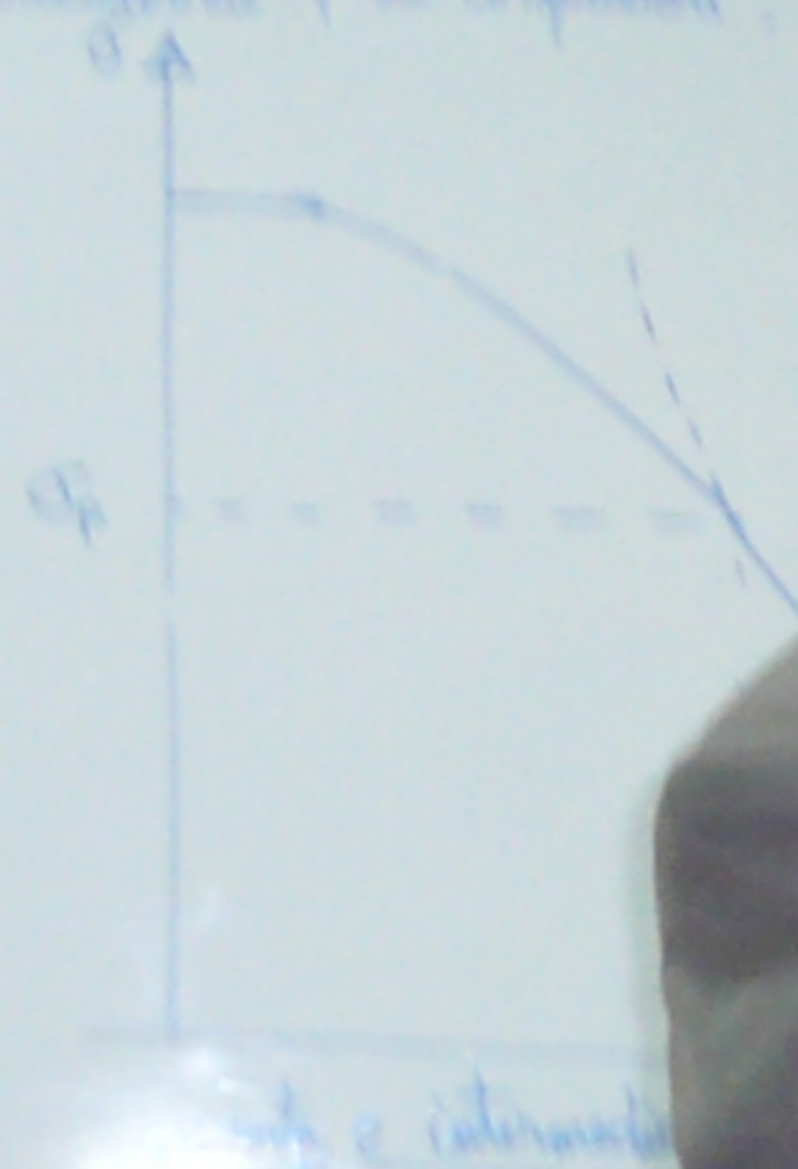
6. **Disasters**



Formas de Fubri para col. longas

I. Hipóteses

1. Col. articulada en ambos extremos.
2. Carga axial es insignificante y de compresión.
3. Despl. pequeños.



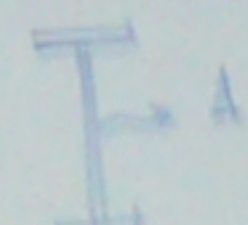
$$x=L, y=0 \Rightarrow 0 = C_1 \sin\left(\sqrt{\frac{P}{EI}} L\right)$$

$$C_2 = 0 \Rightarrow \text{Sol. trivial}$$

$$\sin\left(\sqrt{\frac{P}{EI}} L\right) = 0$$

$$\sqrt{\frac{P}{EI}} L = n\pi, \quad n=0,1,2,3$$

LRFD



$$\frac{P_n}{A} = \frac{P}{A} = \frac{P}{A} \Rightarrow \frac{P_n}{A} = \frac{P}{A} = \frac{P}{A}$$

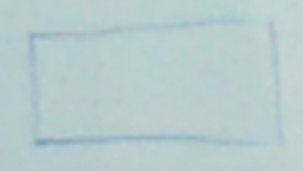
$$\sigma_{cr} = \frac{\pi^2 EI}{(KL)^2} = \sigma_p$$

LRFD

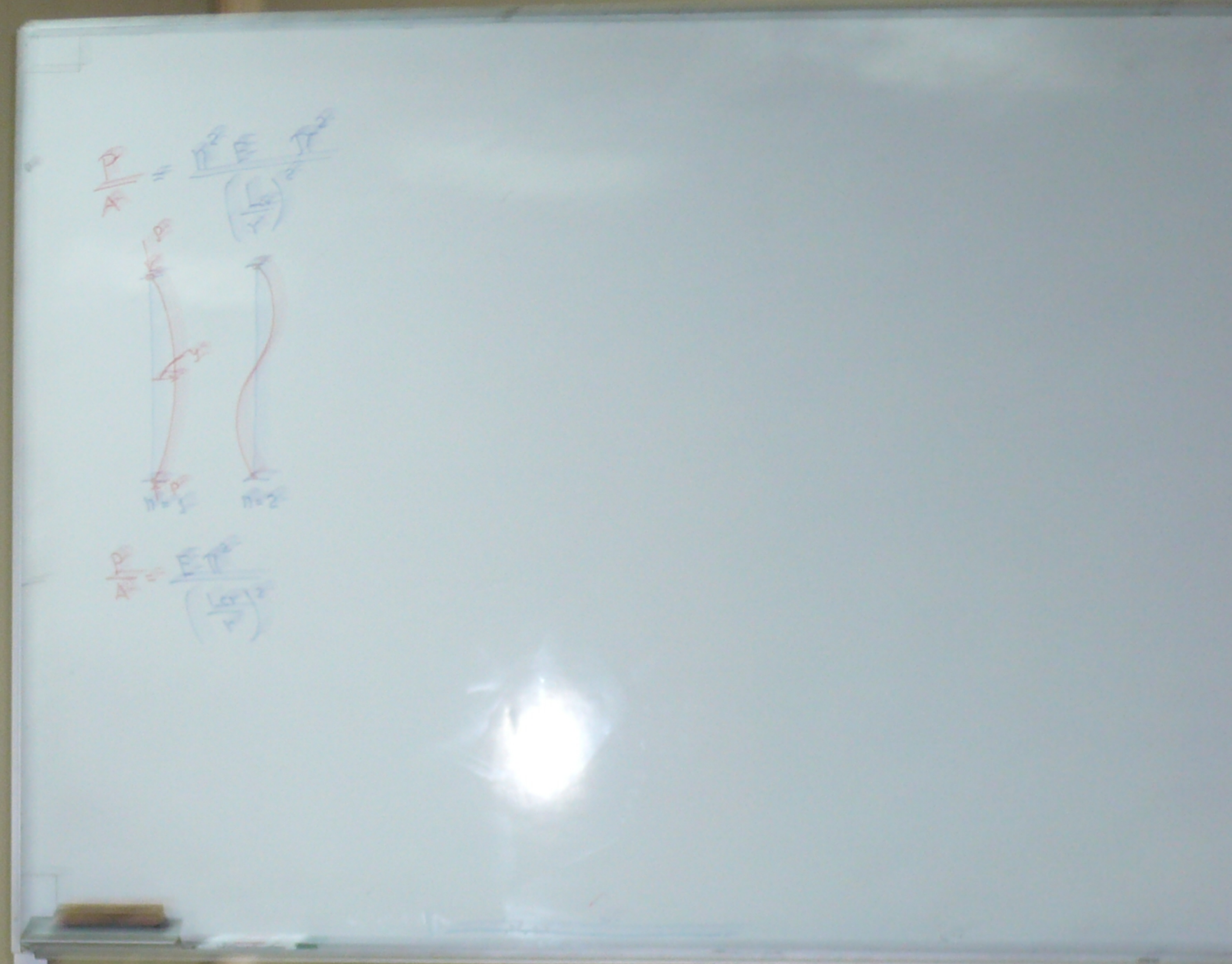
Probabilidad

$$C = \frac{My}{I}$$

- M: Momento Flexor
- y: Distancia de la fibra al E.N. Geométrico
- I: Momento de Inercia de la Sección
- C: Esfuerzo





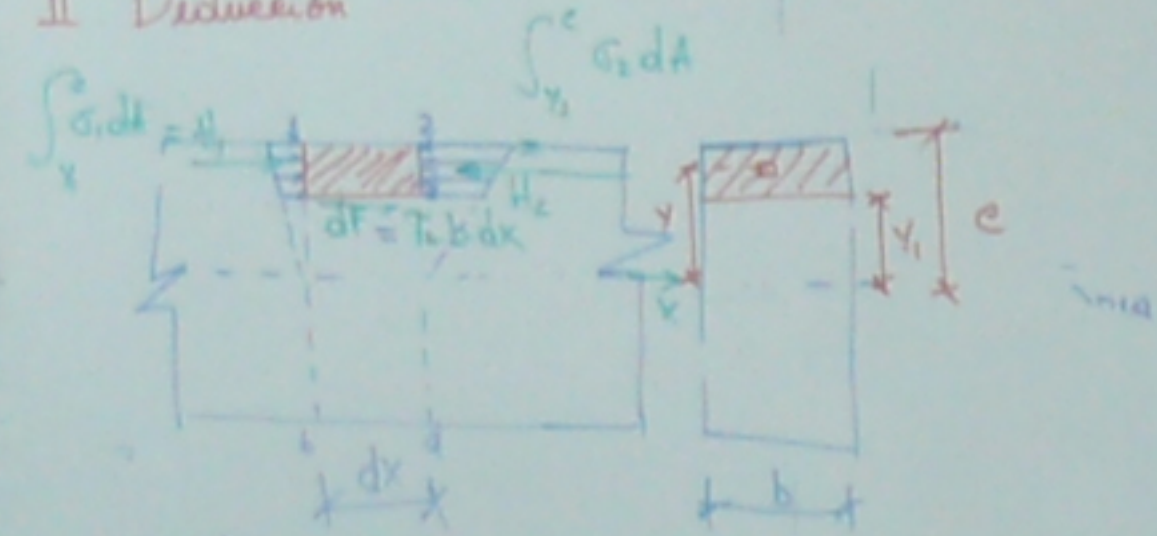


b) Esfuerzo Horizontal

I Hipotesis

1. Sección plana permanece plana
2. ley de Hooke
3. E es igual a la T y a la ϵ
4. Viga es horizontal y de S es

II Derivación



$$M_2 > M_1$$

$$\sum F_x = 0 \Rightarrow H_1 dx - H_2 = 0$$

$$dF = H_2 - H_1$$

$$\sum b dx = \int_{y_1}^c \sigma dx - \int_{y_1}^c \sigma dx$$

$$= \int_{y_1}^c \frac{M_2 y}{I} dx - \int_{y_1}^c \frac{M_1 y}{I} dx$$

$$= \int_{y_1}^c \frac{(M_2 - M_1) y}{I} dx$$

$$\frac{E}{\rho} \int y dx = 0$$

$$\frac{E}{\rho} \cdot A \bar{y} = 0$$

$\bar{y} = 0 \rightarrow E N$ coincide de la neutral

$$\sum y \cdot \sigma dx = 0$$

$$\int y \cdot \sigma dx$$

$$= \int y \cdot \frac{E y}{\rho} dx$$

$$= \int y^2 dx$$

$$I = \frac{E I}{\rho}$$

$$F = \frac{\sigma}{y} \cdot M = \frac{\sigma I}{y}$$

$$S = \frac{M y}{I}$$

rho de flexión
LORD



