

Problemas sobre columnas

Oscar Espino Varela¹

¹Instituto Tecnológico Superior Zacatecas Occidente

May 14, 2019

1)

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

$$EI = \frac{d^2v}{dx^2} + \frac{P}{EI}v = 0$$

$$\sqrt{\frac{P}{EI}}L = n\pi$$

$$EI = \frac{d^2v}{dx^2} = M$$

$$\left(\sqrt{\left(\frac{P}{EI}\right)^2}L^2 = (n\pi)^2\right)$$

$$M = -Pv$$

$$L^2 = n\pi^2$$

$$EI = \frac{d^2v}{dx^2} - Pv$$

$$v = 0 \text{ en } X \text{ y } C2 = 0$$