

Tarea

- Analizar el Problema de Taylor
- Resolver y Analizar Variables

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Dimensiones:

$M = \text{Kg, g, L, etc.}$
(Masa)

$T = \text{h, s, m}$
(tiempo)

$L = \text{Km, m, cm}$
(longitud)

Energía $[\text{Kg} \frac{\text{m}^2}{\text{s}^2}] E$

$$E = [M \frac{L^2}{T^2}]$$

Densidad $[\text{Kg}/\text{m}^3] \rho$

$$\rho = [M/L^3]$$

Tiempo $[s] T$

$$T = [T]$$

Radio $[m] R$

$$R = [L]$$

Relación entre las Variables

$$E \propto \rho^a T^b R^c$$

$$M \frac{L^2}{T^2} = [M/L^3]^a \cdot [T]^b \cdot [L]^c$$

$$M \frac{L^2}{T^2} = M^a \cdot L^{-3a} \cdot T^b \cdot L^c$$

$$M \frac{L^2}{T^2} = M^a \cdot L^{-3a+c} \cdot T^b$$

$$M^1 = M^a$$

$$\boxed{a=1}$$

$$L^2 = L^{-3a+c}$$

$$2 = -3 \cdot 1 + c$$

$$\boxed{c=5}$$

$$T^{-2} = T^b$$

$$\boxed{b=-2}$$

$$\boxed{a=1}$$

$$\boxed{b=-2}$$

$$\boxed{c=5}$$

$$E(\rho, T, R) \Rightarrow \boxed{E(\rho, T^{-2}, R^5)}$$