

10

Cadete Arturo Chávez Cardenas.

CUC Física

TRABAJO TAYLOR

Energía $\left[\frac{\text{kg} \cdot \text{m}^2}{\text{s}^2} \right]$
(E)

Densidad $[\text{kg} \cdot \text{l} \cdot \text{m}^3]$
(ρ)

Tiempo [s]
(T)

Radio [m]
(R)

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

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

$$T = [T]$$

$$R = [L]$$

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

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

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

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

$$\begin{aligned} M^1 &= M^a & L^2 &= L^{-3a+c} & T^{-2} &= T^b \\ a &= 1 & c &= 5 & b &= -2 \end{aligned}$$

$$E(\rho, T, R) \rightarrow E(\rho^1; T^{-2}; R^5)$$

$$\begin{aligned} a &= 1 \\ b &= -2 \\ c &= 5 \end{aligned}$$

Dimensiones

M = kg, g, L, etc. (masa)

T = h, s, m (Tiempo)

L = km, m, cm (longitud)