Ejercicio 1

b) $R = 0,9995$

Relación funcional:

$$\boxed{Ln\,T = 0,4995 \cdot Ln\,L + 0,6947}$$

$$T = 2\pi \cdot \frac{\sqrt{L}}{\sqrt{g}} \quad / \ln$$

$$\ln T = \ln\left(2\pi \cdot \frac{\sqrt{L}}{\sqrt{g}}\right)$$

$$\ln T = \ln 2\pi + \ln \frac{\sqrt{L}}{\sqrt{g}} \Rightarrow$$

$$\ln T = \ln 2\pi + \ln \sqrt{L} - \ln \sqrt{g}$$

$$\ln T = \ln 2\pi + \ln L^{1/2} - \ln \sqrt{g}$$

$$\ln T = \ln L^{1/2} + \ln 2\pi - \ln \sqrt{g}$$

$$\ln T = \frac{1}{2} \ln L + \ln 2\pi - \ln \sqrt{g}$$

$$\boxed{\ln T = 0,5 \cdot \ln L + (\ln 2\pi - \ln \sqrt{g})}$$ Relación funcional teórica

Comparando las 2 relaciones funcionales se tiene

$m = 0,4995 \left(\frac{s}{m}\right)$

$n = 0,6947\ (s)$

$$\ln 2\pi - \ln \sqrt{g} = 0,6947$$

$$\ln 2\pi - 0,6947 = \ln \sqrt{g}$$

$$1,8379 - 0,6947 = \ln \sqrt{g} \rightarrow \ln g^{1/2}$$

$$1,1432 = \ln \sqrt{g}$$

$$1,1432 = \frac{1}{2} \cdot \ln g$$

$$1,1432 \cdot 2 = \ln g$$

$$2,2864 = \ln g \quad / e$$

$$e^{2,2864} = e^{\ln g}$$

$$e^{2,2864} = e^{\ln g}$$

$$9,839 \frac{m}{s^2} = g$$

SHIF $e^x$ Ln 2 . 2 8 6 4 =

e 2,2864
9,839