

TABELA DE FÓRMULAS

$$v = \sqrt{\frac{T}{\mu}} \quad (\text{para uma corda})$$

$$D(x, t) = A \sin(kx \pm \omega t + \phi)$$

$$k = \frac{2\pi}{\lambda} \quad \omega = 2\pi f \quad T = \frac{1}{f}$$

$$n_1 \sin \theta_1 = n_2 \sin \theta_2$$

$$\frac{1}{s} + \frac{1}{s'} = \frac{1}{f} = \left(\frac{n_2}{n_1} - 1\right) \left(\frac{1}{R_1} - \frac{1}{R_2}\right)$$

$$m = \frac{-s'}{s}$$

$$v = \lambda f \quad n = \frac{c}{v}$$

$$d \sin \theta = m \lambda \quad (\text{construtiva} - \text{fendas múltiplas})$$

$$a \sin \theta = m \lambda \quad (\text{destrutiva} - \text{fenda simples})$$

$$\text{se } \theta < 1^\circ, \sin \theta \approx \theta$$

$$\tan \theta = \frac{y}{L} \quad \theta = 1,22 \frac{\lambda}{D}$$

$$k \Delta r + \Delta \phi_o = m \cdot 2\pi \quad (\text{construtiva})$$

$$\lambda = \frac{2L}{m} \quad f_m = m \frac{v}{2L} \quad m = 1, 2, 3, 4, \dots$$

$$\lambda = \frac{4L}{m} \quad f_m = m \frac{v}{4L} \quad m = 1, 3, 5, 7, \dots$$

Fonte em repouso.

$$f = \left(1 \pm \frac{v_{\text{obs}}}{v}\right) f_o \quad (+ \rightarrow \text{aproximando})$$

Observador em repouso.

$$f = \frac{f_o}{1 \pm \frac{v_F}{v}} \quad (+ \rightarrow \text{afastando})$$

Doppler para a luz

$$\lambda = \sqrt{\frac{1 - v_F/c}{1 + v_F/c}} \lambda_o \quad (\text{aproximando})$$