Formulário:

$$\sin(a+b) = \sin a \cos b + \cos a \sin b$$

$$\sin(a-b) = \sin a \cos b - \cos a \sin b$$

$$\cos(a+b) = \cos a \cos b - \sin a \sin b$$

$$\cos(a-b) = \cos a \cos b + \sin a \sin b$$

$$\sin a + \sin b = 2 \sin\left(\frac{a+b}{2}\right) \cos\left(\frac{a-b}{2}\right)$$

$$\sin a - \sin b = 2 \sin\left(\frac{a-b}{2}\right) \cos\left(\frac{a+b}{2}\right)$$

$$\cos a + \cos b = 2 \cos\left(\frac{a+b}{2}\right) \cos\left(\frac{a-b}{2}\right)$$

$$\cos a - \cos b = -2 \sin\left(\frac{a-b}{2}\right) \sin\left(\frac{a+b}{2}\right)$$

$$f(x_0 + h) = f(x_0) + \frac{df}{dx}(x_0)h + \frac{1}{2}\frac{d^2f}{dx^2}(x_0)h^2 + \ldots$$

$$y_p = A_p \cos(\omega t)\,;\, A_{p,n} = C \sin(p\theta) = C \sin\left(\frac{pn\pi}{N+1}\right);$$

$$\frac{A_{p-1} + A_{p+1}}{A_P} = \frac{2\omega_0^2 - \omega_n^2}{\omega_0^2} = 2\cos(\theta_n)\,;\, \theta_n = \frac{n\pi}{N+1};$$

$$\omega_n^2 = 2\omega_0^2 \left[1 - \cos\left(\frac{n\pi}{N+1}\right)\right] \quad \text{n = 1,...,N em que N é o número de partículas}$$