

$$\text{Mudança: } \frac{e^{\frac{(-j\omega_0 n)}{2}} (e^{\frac{j\omega_0 n}{2}} - e^{\frac{(-j\omega_0 n)}{2}})}{(j\omega_0)} = e^{\frac{(-j\omega_0 n)}{2}} \cdot \text{sinc}\left(\frac{\omega_0 n}{2}\right)$$

$$D_n = e^{(-j\pi n)} \cdot \text{sinc}(\pi n) + \frac{e^{(1-j2\pi n)} - 1}{(2\pi j n - 1)}$$

• Colocando Valores \Rightarrow

$$\lim_{x \rightarrow 0} \frac{\text{sen}(ax)}{\pi x} = 1$$

$$D_0 = 1 + (-1,7183) = -0,7183$$

$$P_0 = 0,516 \text{ W}$$

$$D_1 = \frac{1}{1} \left(e^{(-j\pi)} \cdot \text{sinc}(\pi) + \frac{e^{(1-j2\pi)} - 1}{(2\pi j - 1)} \right) = -0,0424 - 0,2667j$$

$$D_{-1} = -0,0424 + 0,2667j$$

$$P_1 = P_0 + P_{D_1} + P_{D_{-1}} = 0,6619$$

$$D_2 = \frac{1}{1} \left(e^{(-j2\pi)} \cdot \text{sinc}(2\pi) + \frac{e^{(1-j4\pi)} - 1}{(4\pi j - 1)} \right) = -0,0108 - 0,1359j$$

$$D_{-2} = -0,0108 + 0,1359j$$

$$P_2 = P_1 + P_{D_2} + P_{D_{-2}} = 0,6991$$