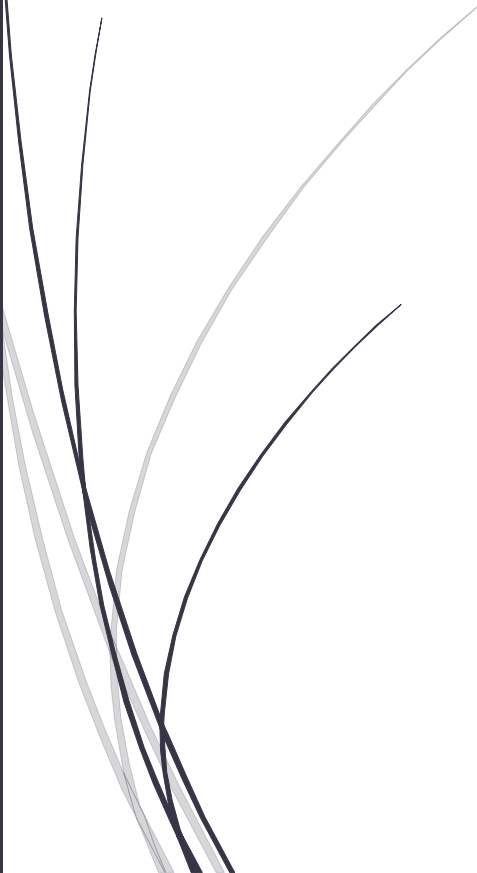
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1-6-2021

# Evidencia 2.5

Martínez Coronel Brayan Yosafat



$$f(t) = 500 \text{sinc}^2(250t)$$

$$f_m = \omega_m / 2\pi = 500 / 2\pi$$

$$q(t) = \delta(t - nT)$$

$$\begin{aligned} \text{muestreo} &= f(t)q(t) \\ &= f(t) \Big|_{t=nT} \end{aligned}$$

$$T = \frac{1}{2f_m} = \frac{\pi}{500}$$

$$x(n) = \{-10, 4, \frac{1}{4}, -1, 0, 2\} \quad y(n) = \{3, -7, 11, 9, -5\}$$

$$F(\omega) = 2\pi \Lambda\left(\frac{\omega}{500}\right)$$

$$\omega_m = 500$$

$$Q(\omega) = \frac{2\pi}{T} \sum_{n=-\infty}^{\infty} \delta(\omega - n\omega_0)$$

$$\begin{aligned} X_s(\omega) &= \frac{F(\omega)}{T} * \sum_{n=-\infty}^{\infty} \delta(\omega - n\omega_0) \\ &= \frac{1}{T} \sum_{n=-\infty}^{\infty} F(\omega - n\omega_0) \end{aligned}$$

$$X_s(\omega) = 1000 \sum_{n=-\infty}^{\infty} \Lambda\left(\frac{\omega - n\omega_0}{500}\right)$$

$$x * y = \{-30, 82, 137.25, -50.75, 95.75, -22.75, -24.25, 27, 18, 10\}$$

$12 + 70 \rightarrow$   
 $\frac{3}{4} - 28 - 110 \rightarrow$   
 $-90 + 44 - \frac{7}{4} - 3 \rightarrow$   
 $0 + 7 + \frac{11}{4} + 36 + 50 \rightarrow$

$6 - 11 + \frac{9}{4} \rightarrow$   
 $-20 \rightarrow$   
 $-14 - 9 - \frac{5}{4} \rightarrow$

$22 + 5 \rightarrow$   
 $18 \rightarrow$   
 $-10 \rightarrow$