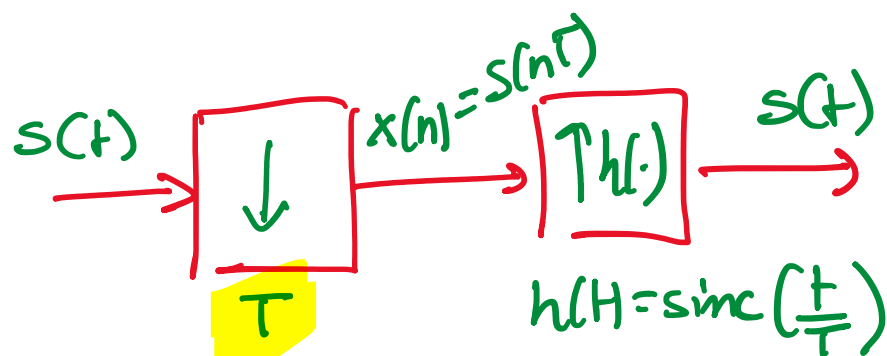


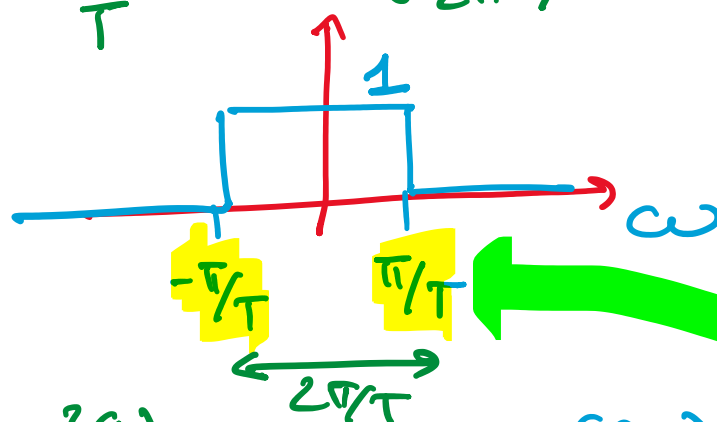
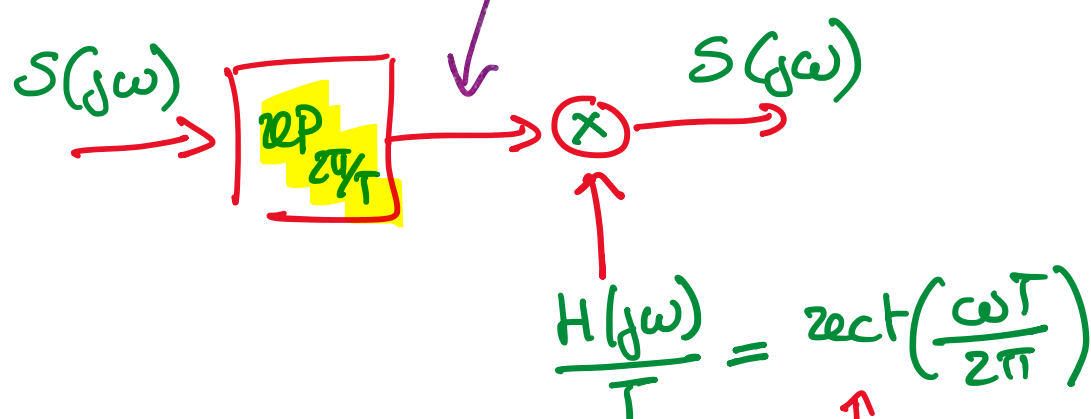
ES 1

PROPORRE UNO SCHEMA DI CAMPIONAMENTO
E RICOSTRUZIONE PERFETTA PER IL SEGNALE

$$s(t) = \text{sinc}^3(t)$$

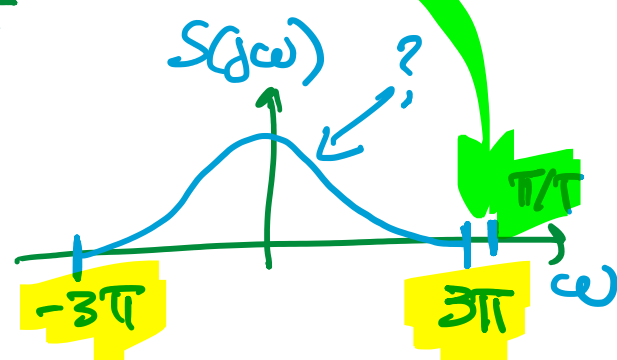
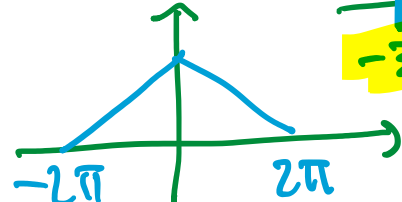
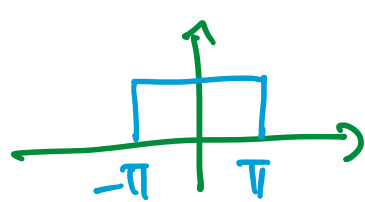


? SCEGLIERE T x NON AVERE ALIASING



$$s(t) = \text{sinc}^3(t) = \text{sinc}(t) \cdot \text{sinc}^2(t)$$

$$S(j\omega) = ? = \frac{1}{2\pi} \text{rect}\left(\frac{\omega}{2\pi}\right) * \text{sinc}^2\left(\frac{\omega}{2\pi}\right)$$



CONDIZIONE DI PERFETTA RICOSTRUZIONE

$$\pi/T \geq 3\pi$$

OVVERO

$$T \leq \frac{1}{3}$$

$\Rightarrow$

$$T = \frac{1}{3}$$

$$\text{sinc}^3(t) = \sum_{k=-\infty}^{\infty} \text{sinc}^3\left(\frac{k}{3}\right) \cdot \text{sinc}\left(\frac{t - kT}{T}\right)$$