$$\int_{-\infty}^{+\infty} x(k) \, \delta(t-t_0) \, dt = \int_{-\infty}^{+\infty} (k) \, \delta(t_0-t) \, dt \quad \text{PARITA}$$

Din

$$\int_{-\infty}^{+\infty} x(k) \, \delta(t_0 - k) \, dt = \lim_{\Delta \to 0} \int_{-\infty}^{+\infty} x(k) \, D(t_0 - t, \Delta) \, dt$$

Cité à de finitione

Siffessa 0 1 5 xill de.

$$=\lim_{\Delta \to 0} \frac{1}{\Delta} \int_{t_0-\Delta}^{t_0} x(t) dt = \frac{1}{\Delta} x(t_0) \Delta = x(t_0)$$

$$=\lim_{\Delta \to 0} \frac{1}{\Delta} \int_{t_0-\Delta}^{t_0} x(t) dt = \frac{1}{\Delta} x(t_0) \Delta = x(t_0)$$
Area infinitesitate

NEL PUND CUNSIDERATO

$$X(k) * S(k) = x(k) = \int_{-\infty}^{+\infty} x(\pi) S(k-\tau) d\tau$$

$$S(k) \in L.$$
NEUTRO
CONVOLUZIONE

$$x(t_0) = \int_{-\infty}^{+\infty} x(t) \, \delta(t_0 - t) \, dt$$

SOSTITUISCO, IN ORDINE: to to to

$$= > \mathfrak{D} \rightarrow \times (t_0) = \int_{-\infty}^{+\infty} \chi(\pi) \, \delta(t_0 - \tau) \, d\tau \left[\chi(t) = \int_{-\infty}^{+\infty} \chi(\tau) \, \delta(t - \tau) \, d\tau \right]$$

Scanned with CamScanner

$$8(2k) = \frac{8(k)}{|2|}, 2\neq 0$$

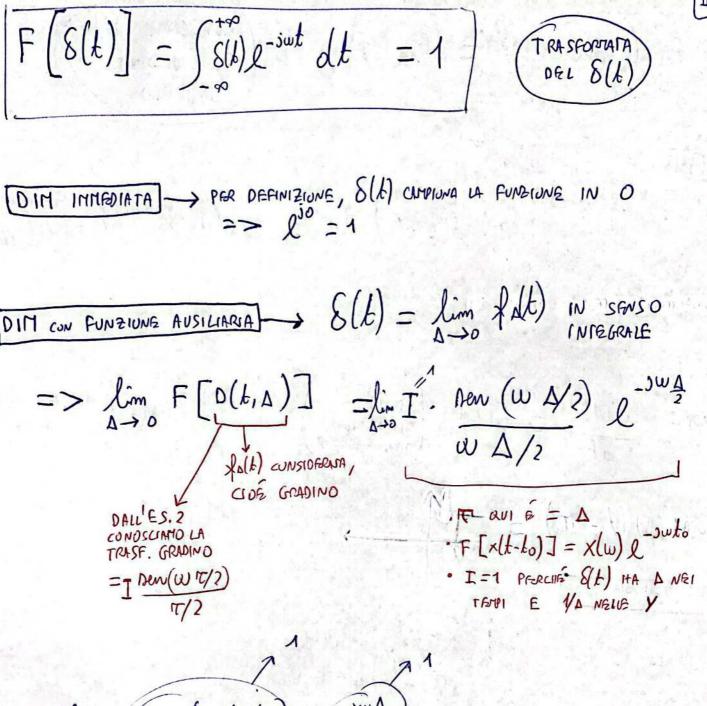
DIU

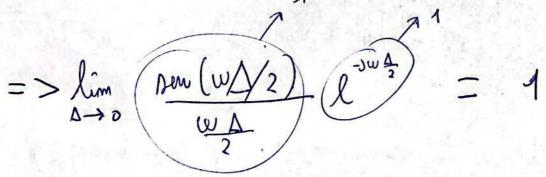
$$\int_{-\infty}^{+\infty} x(t) \, \delta(2t) \, dt \qquad \xi = 2t$$

$$\rightarrow \int_{X}^{+\infty} \left(\xi_{\lambda} \right) \delta(\xi) \frac{d\xi}{d\lambda} = \frac{1}{2} \times \frac{$$

$$= \frac{1}{121} \int_{-\infty}^{+\infty} x(\xi_{1}) \delta(\xi) d\xi = \frac{1}{121} x(0) =$$

$$=\frac{1}{|\mathcal{L}|}\int_{x(k)}^{+p} \delta(k) \, \delta(k) \, dk = \int_{-p}^{+p} x(k) \, \frac{\delta(k)}{|\mathcal{L}|} \, dk$$





 $\int_{-\infty}^{\infty} \delta(r) dr = U(t)$ $\int_{-\infty}^{\infty} \delta(r) dr = U(t)$ 110 Y(k) = 5 8(t) U(t-t) dt = 8(k) * U(k) = [U(k)] ASSESSED A COLOR U(k) = { 1 t > 0 NOTA: du(t) - 8(t) (NEL SENSO DELLE OISTRUBULIUM), ALTERNAMI = 0) -- (1. a) a -oux $(r,t) = \begin{cases} 4 & \pi < t \\ 0 & \pi > t \end{cases}$ $\int_{-\infty}^{\infty} \delta(r) dr = \int_{-\infty}^{+\infty} \delta(r) dr =$ berneue 01 resinere 8(4) E DELMISTO NETTINERATE CIOÉ DUX (T, L) NI FRA - 2 + 40 WE ESISTONO ALTRE FUNZIONI GRADINO -> 1(K) = U(K) - 1) -> (regno (k) = 2.1(k):