

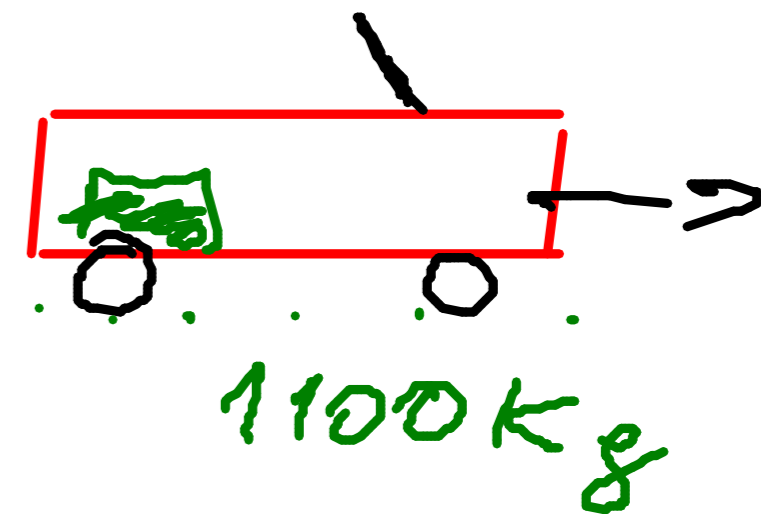
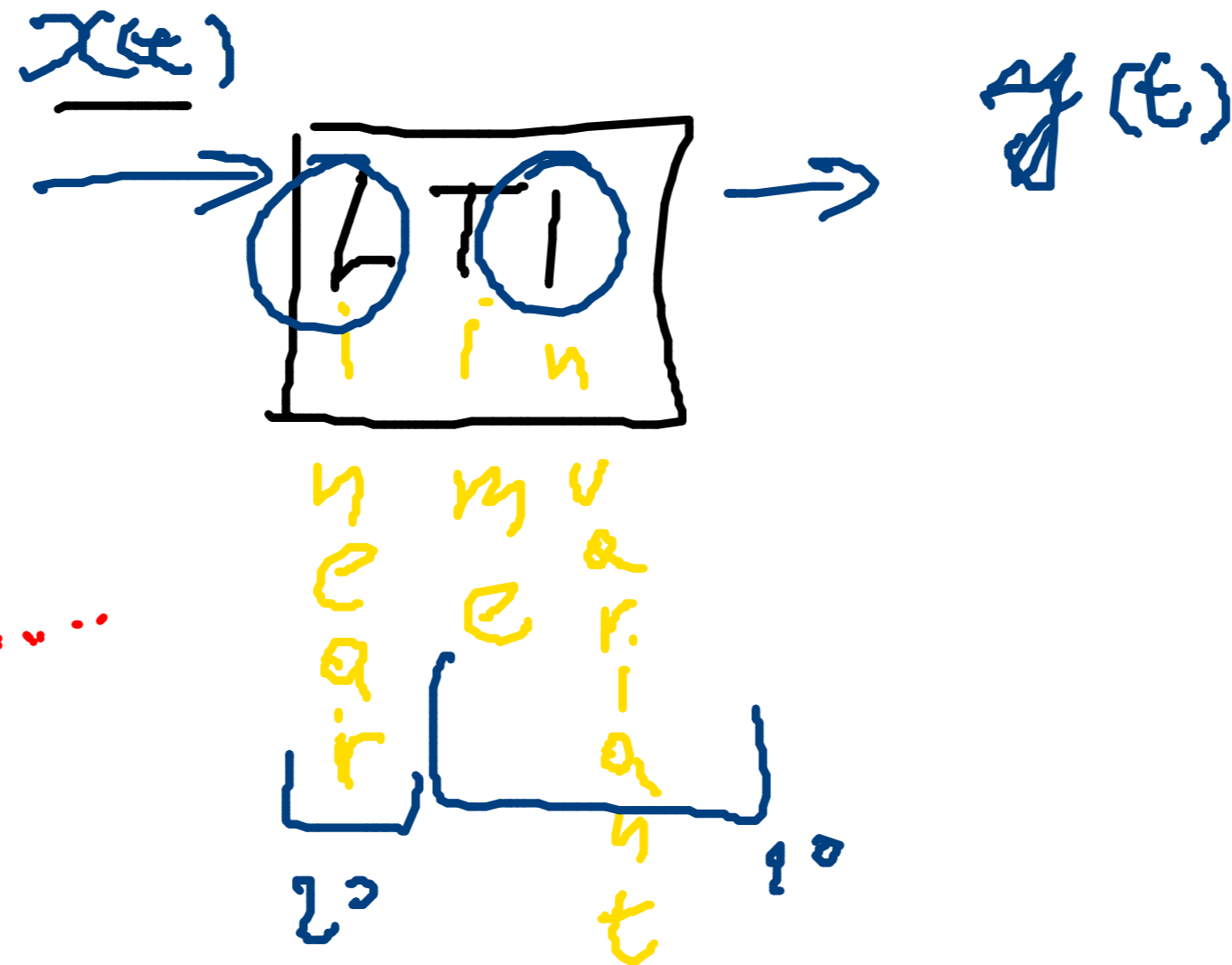
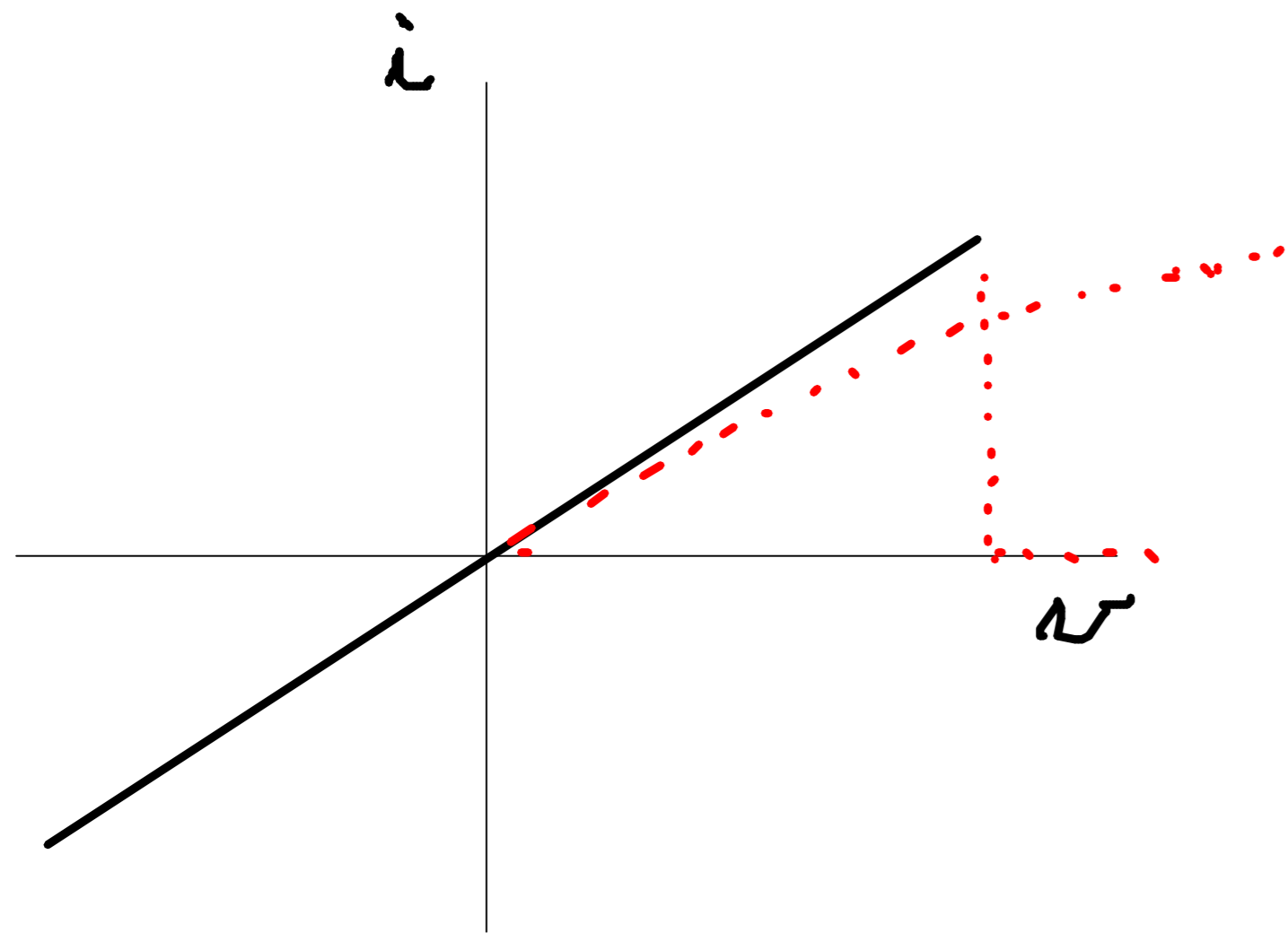
Tema 3

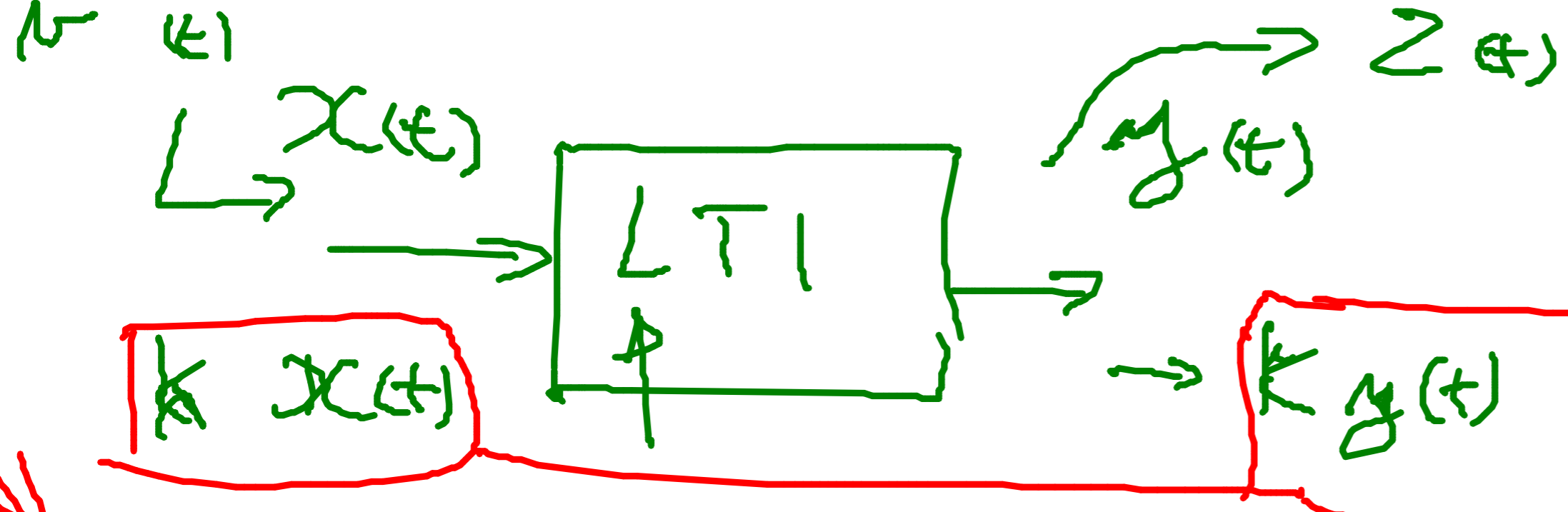
Carlson 2.4

diatri caps. 2

Oppenheim 2.2

¿ Sist. Lineal?

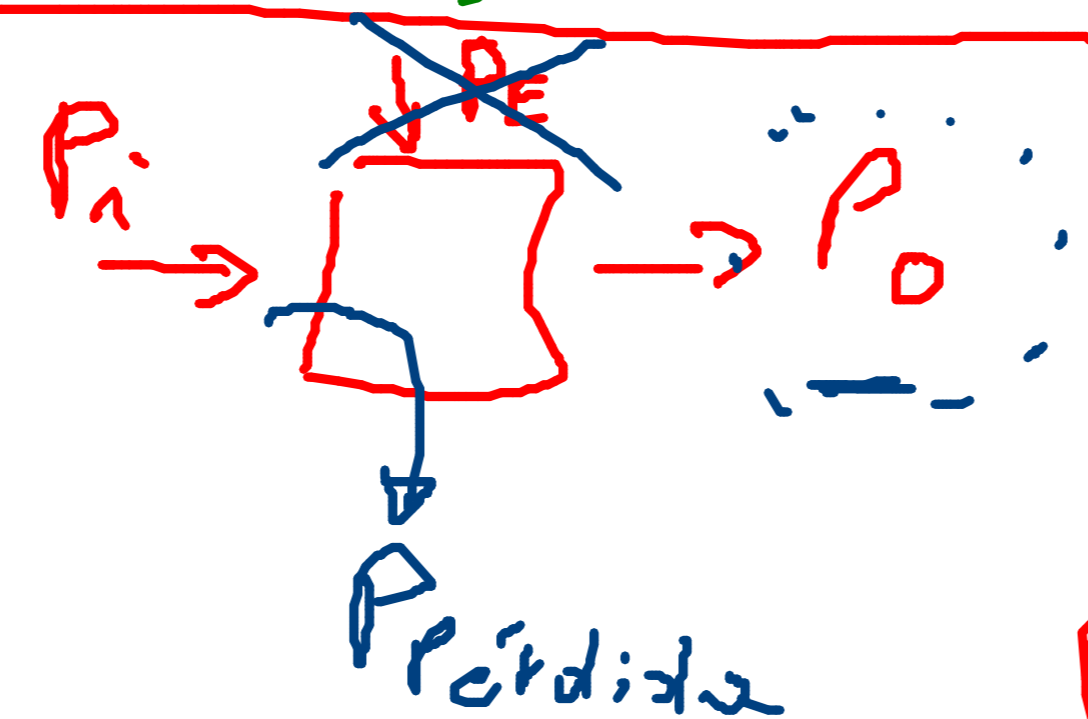




$a X(t) + b \cdot N(t) \rightarrow a y(t) + b \cdot Z(t)$

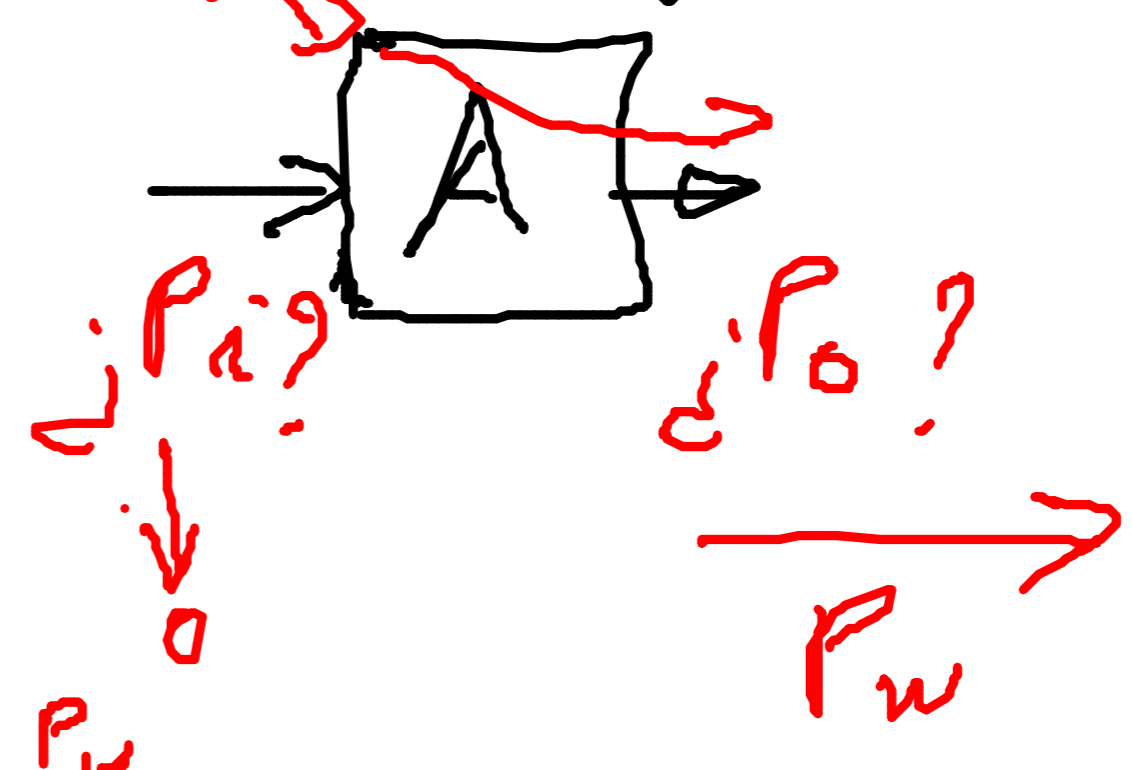
Puede ser Passividad?

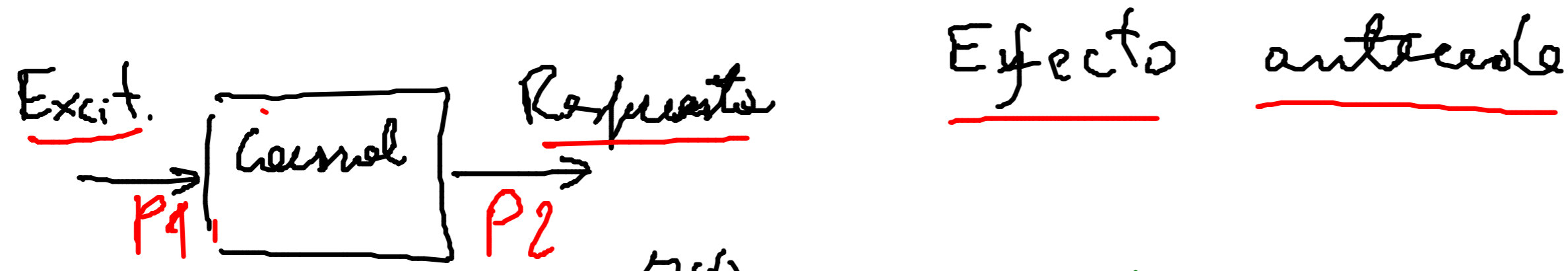
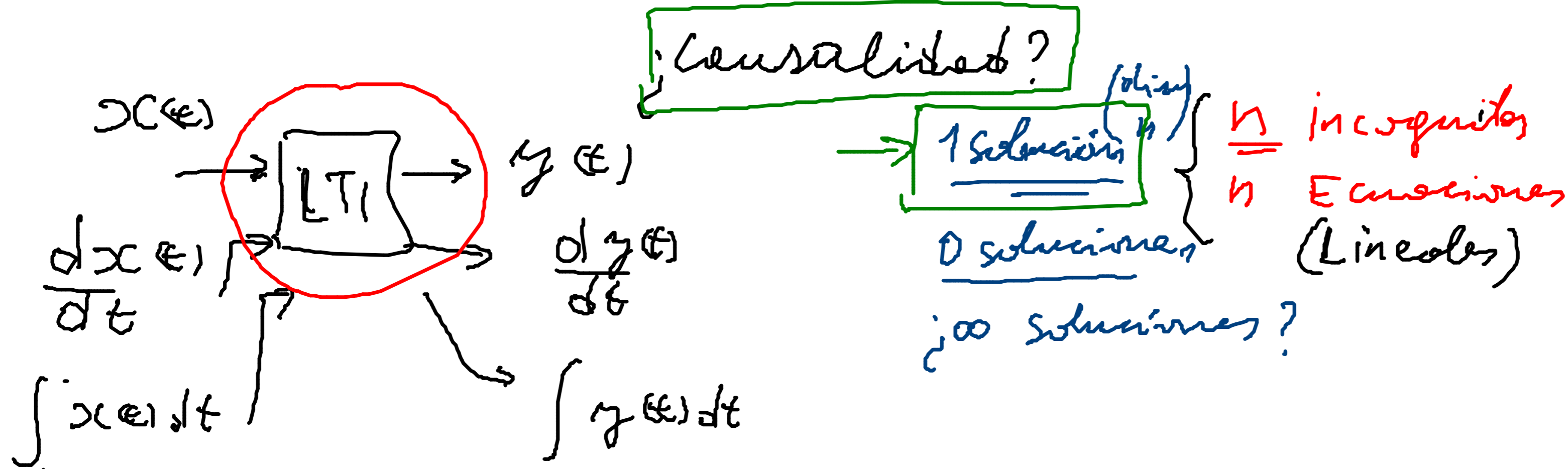
Puede ser Responividad?



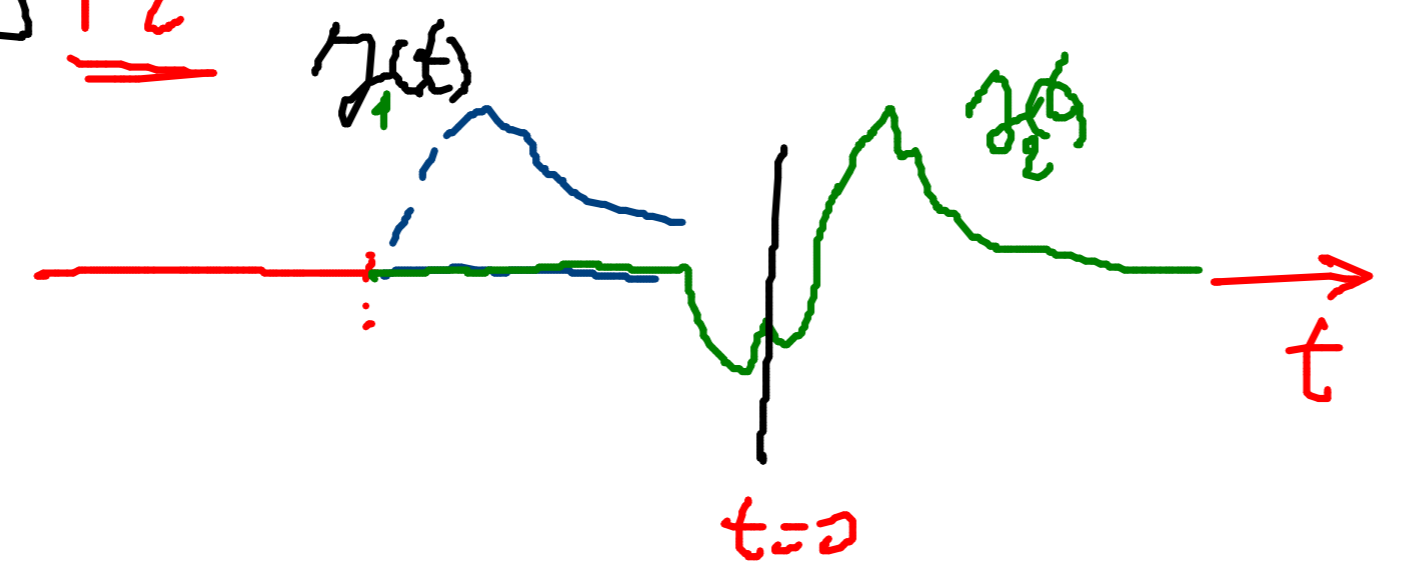
Activo

P_w No es positivo





Sist. causal



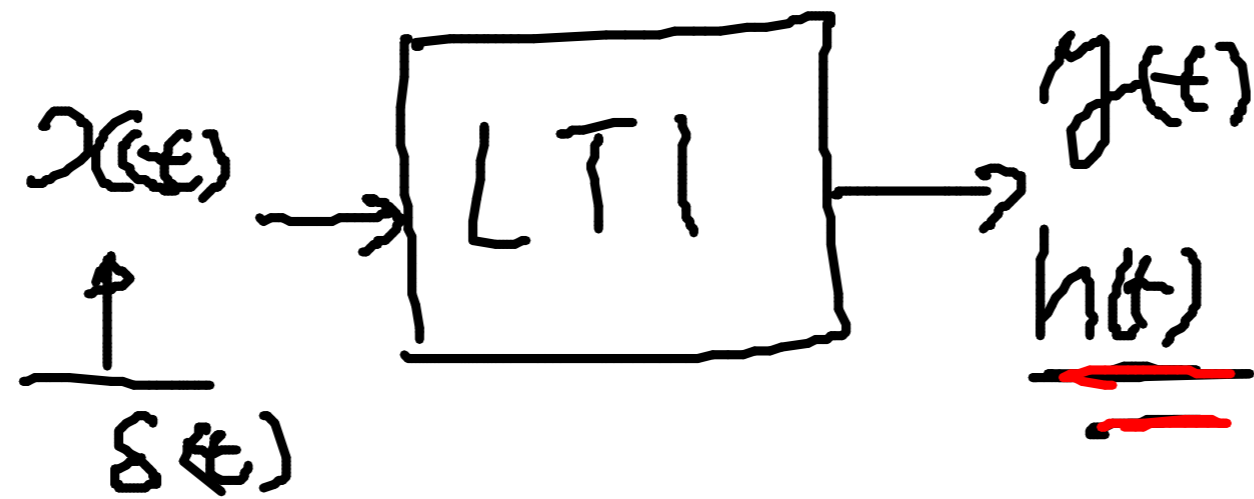
Sist. no causal

Todos los que
 + reflejan en
 tiempo real existencial
 o físico



Señales
 cuadradas
 [tiempo
 variable
 Registrada

T.d.F



F.R. = $\frac{y(t)}{x(t)}$ | Función de Transf.

"Resposta natural" = $h(t)$

F.o.T = $H(s)$; T.o.T = $H(j\omega)$

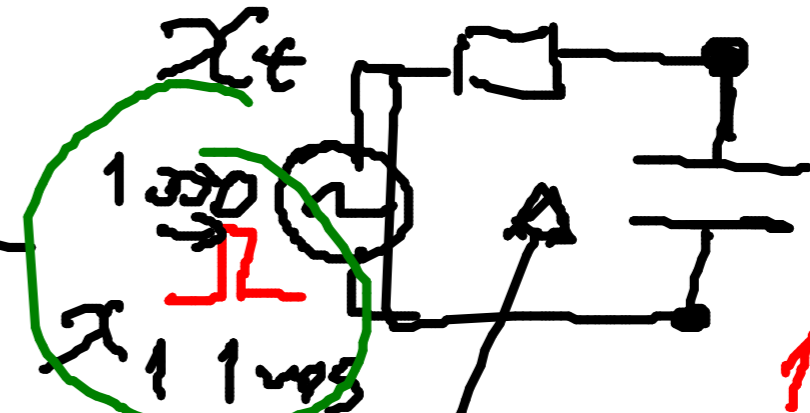
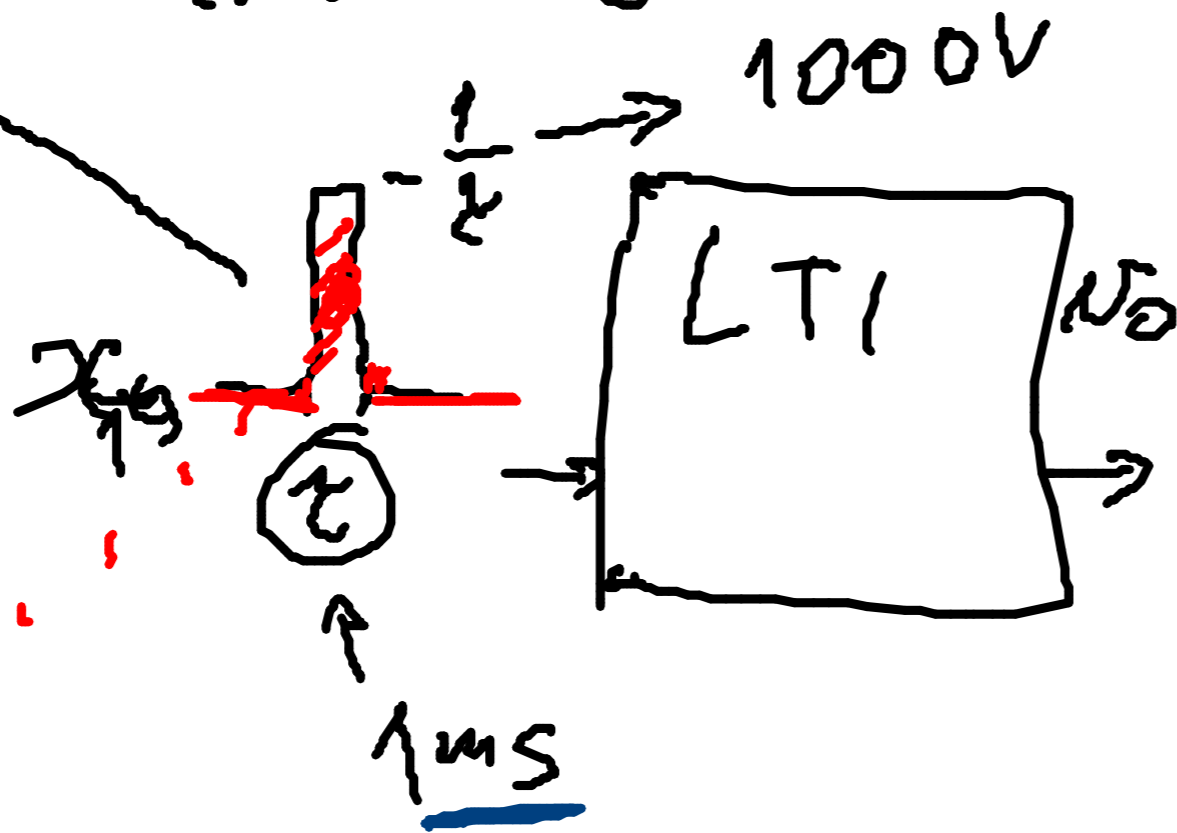
Handwritten notes: $s = \sigma + j\omega$ (with an arrow pointing to the right), and (f) below $H(j\omega)$.

Trans. de Laplace



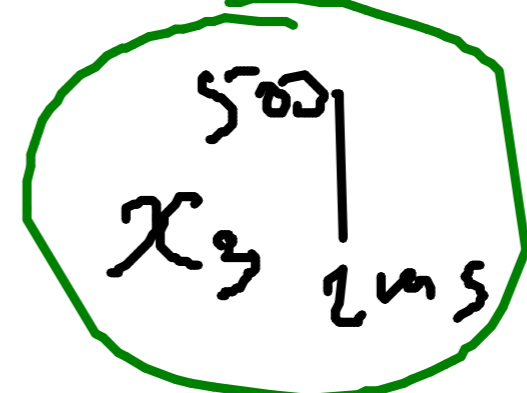
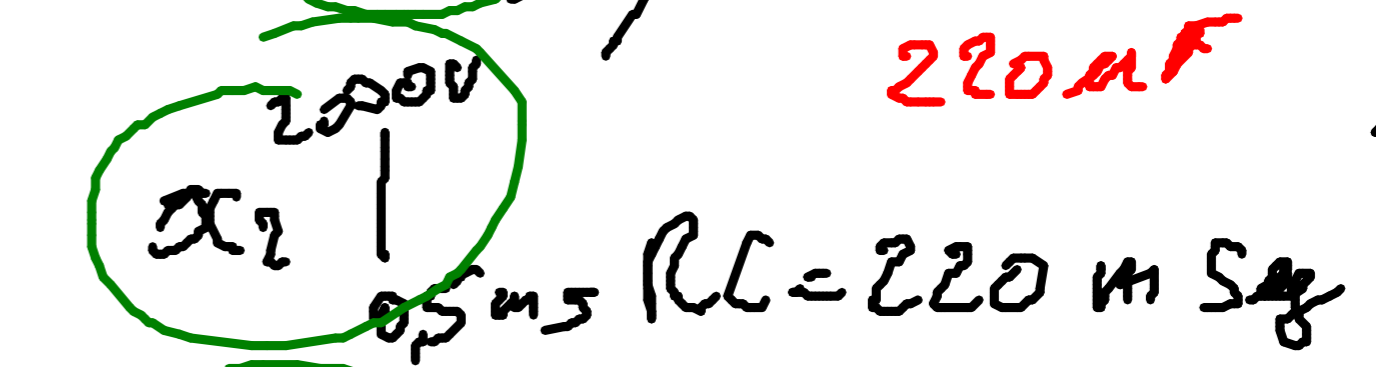
modelo \rightarrow 2V

0,032 delta(t)

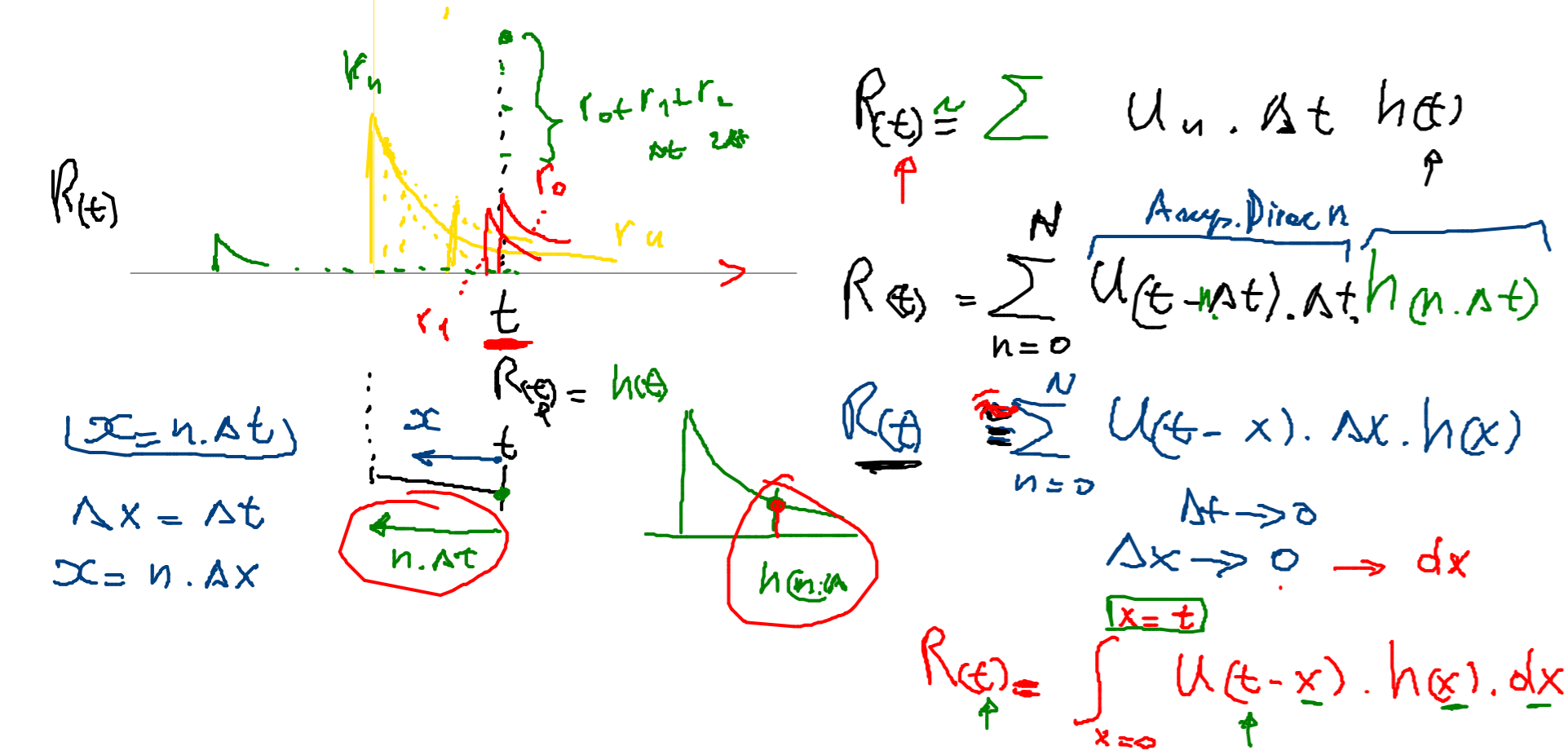
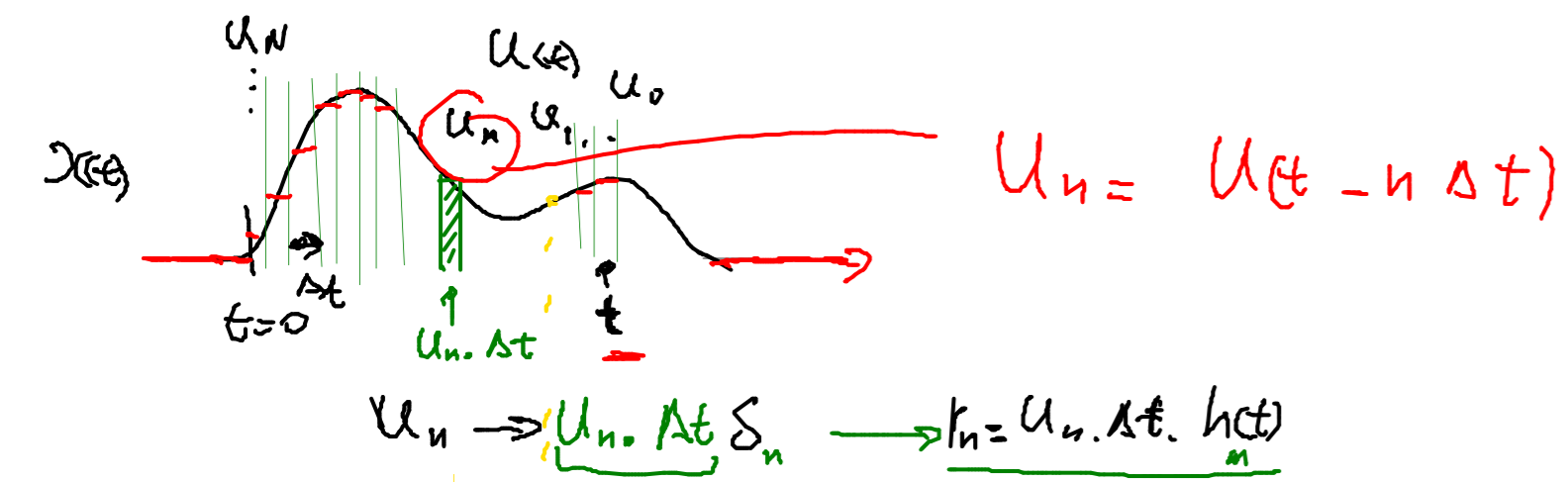


$x_1 = 1 \cdot \delta(t) \text{ V} \rightarrow h(t)$

$x_2(t) = 0,002 \cdot \delta(t) \rightarrow 0,002 \cdot h(t)$



21
22
23



$$x * y = \int_{-\infty}^{\infty} x(t-z) y(z) dz$$

$\infty \quad U(t)$ viene da $t = -\infty$
 $U(t) = 0$ per $t < 0$
 $R(t) = \int_{x=0}^{x=t} U(t-x) \cdot h(x) \cdot dx$
 $\therefore \rightarrow h(t) = 0$ per $t < 0$
 $\rightarrow h(t) \neq 0$ per $t > 0$