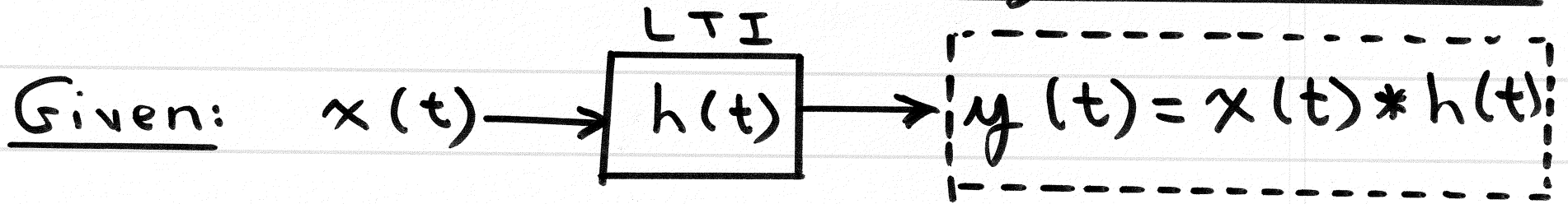


Some implications of Linearity & Time-Invariance



TI implies:

$$x(t-t_0) \rightarrow \boxed{h(t)} \rightarrow y(t-t_0) = x(t-t_0) * h(t)$$

Also: $x(t-t_0) * h(t) = y(t-t_0)$

$$x(t) * h(t-t_0) = y(t-t_0)$$

and, ^{also} invoking linearity as well (homogeneity):

$$a x(t-t_1) * b h(t-t_2) = ab y(t-(t_1+t_2))$$