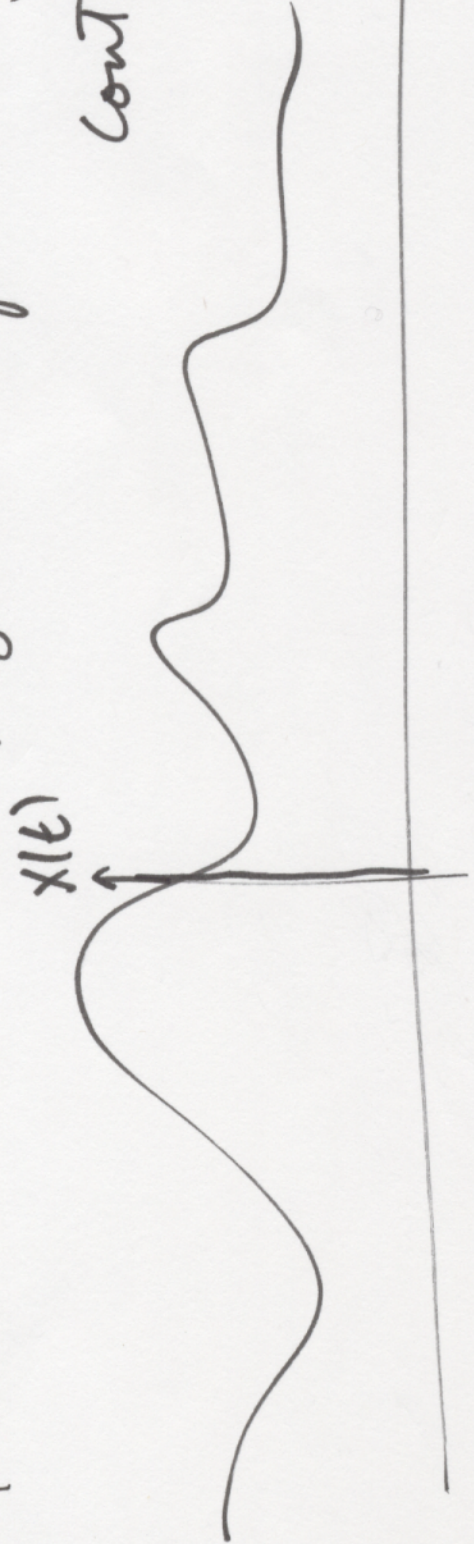


8/27/03

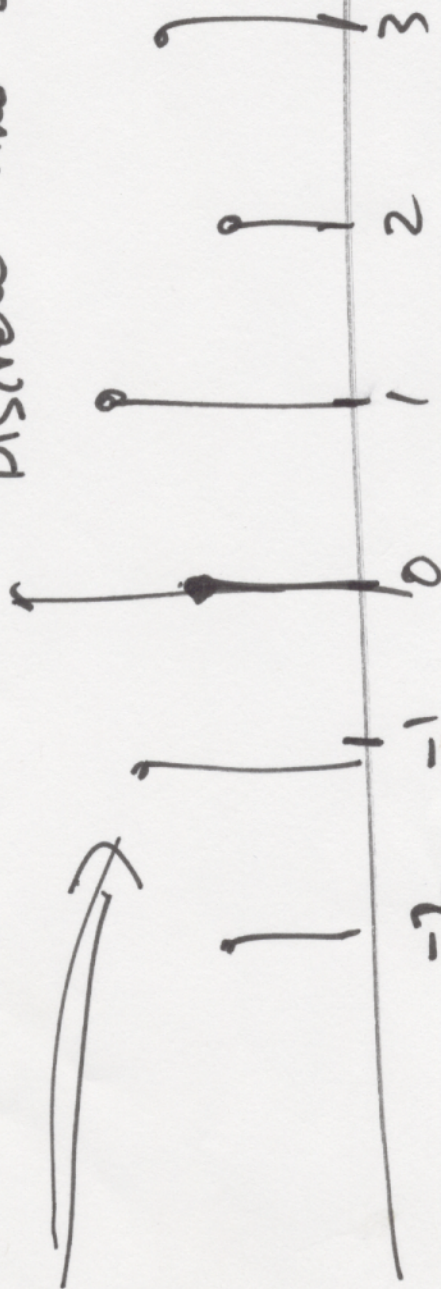
Digital Signal Processing (DSP)

Continuous Time signal

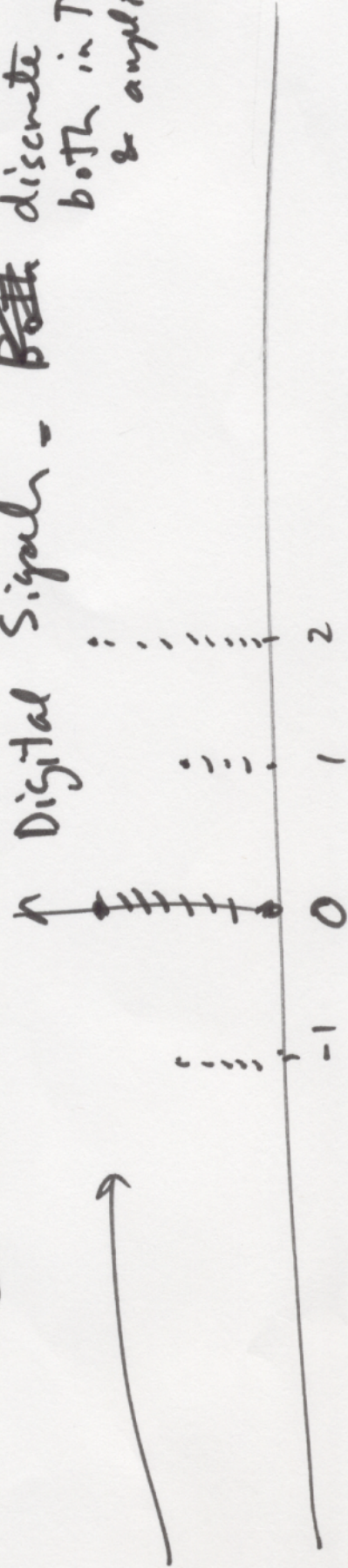


real variable.

Discrete Time Signals \rightarrow (not necessarily discrete amplitude)

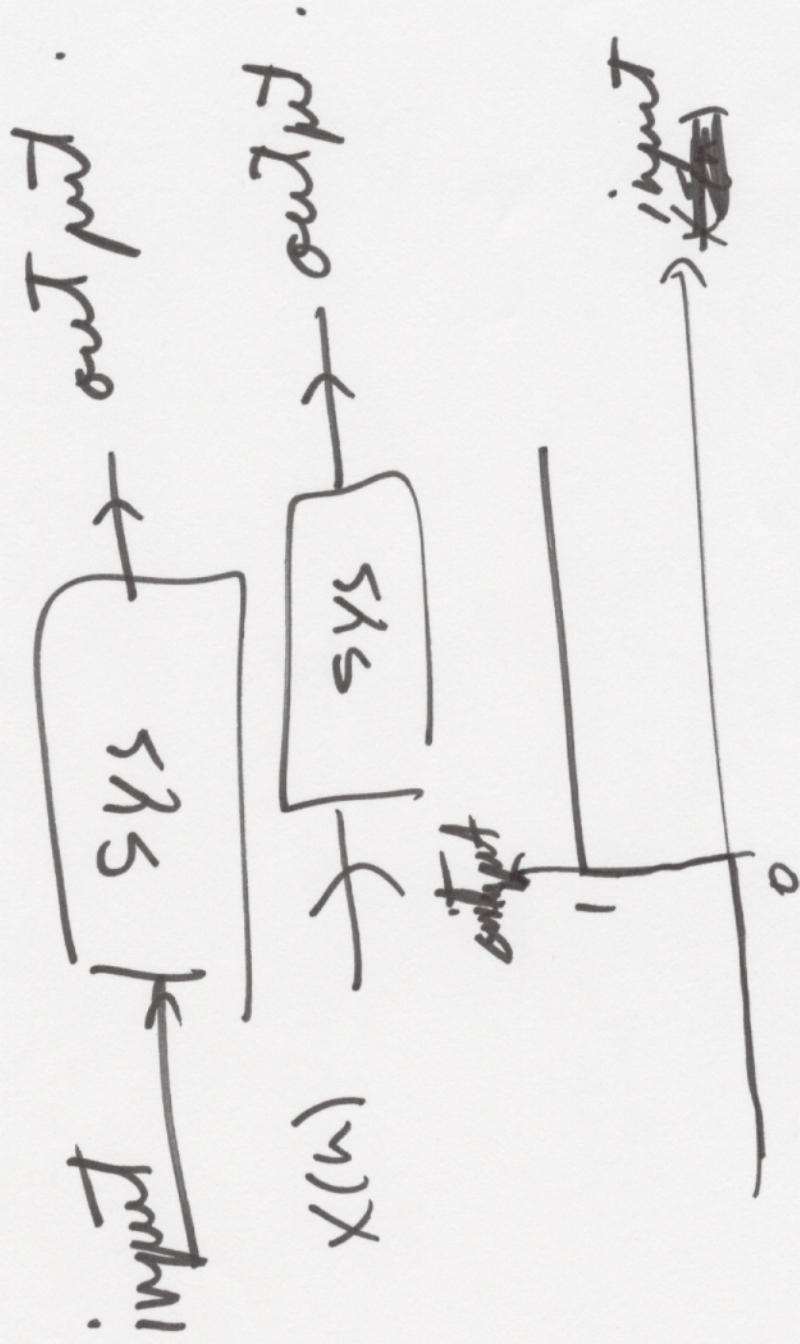


Digital Signal - ~~Both~~ discrete both in Time & amplitude



Systems

processes a signal.



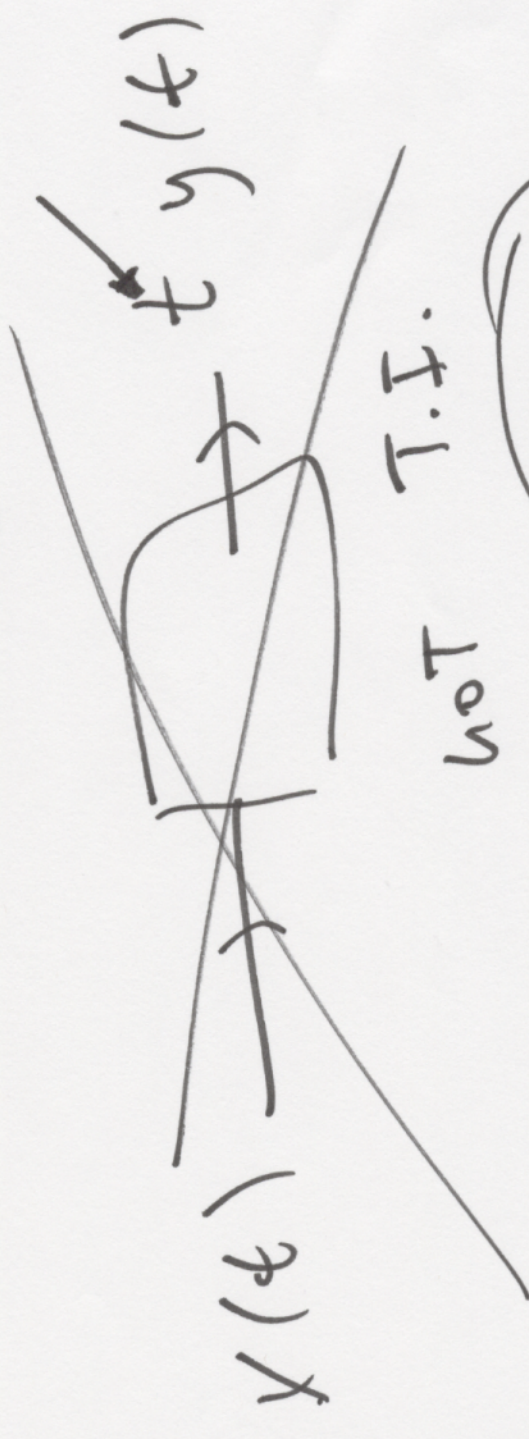
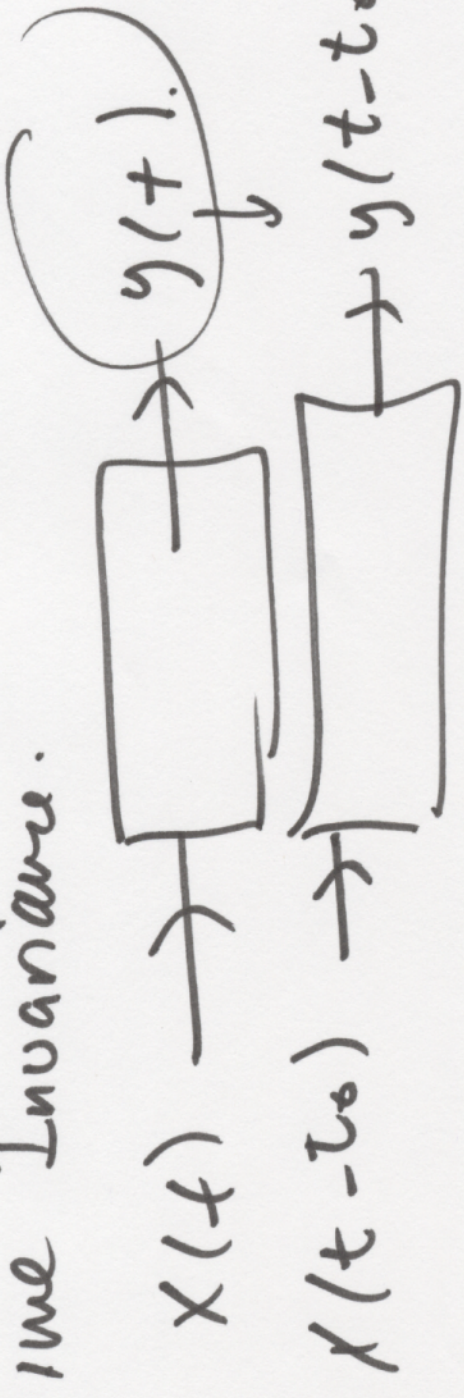
linear.



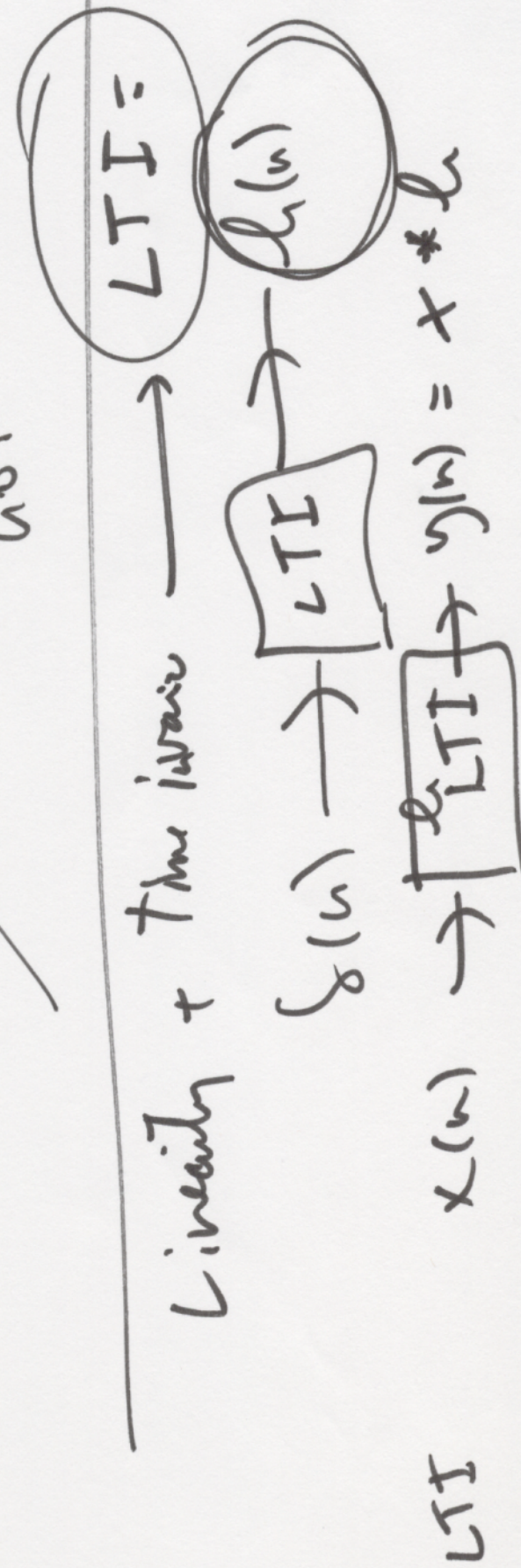
$$\uparrow \{ a x(n) \} = a y(n)$$

$$x_1 + x_2 \rightarrow y_1 + y_2$$

Time Invariance.



NOT T.I.



LTI

$$x \neq \text{but } y(n) = \sum_{k=-\infty}^{+\infty} x(k) h(n-k)$$

Condition