

* Watch Online Video 1.4.1

* \boxed{CT} Unit step is a signal

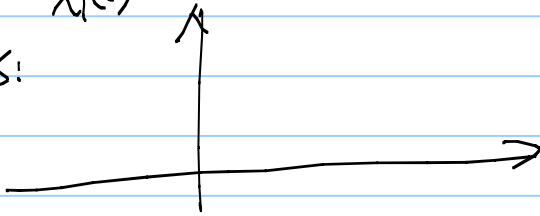


Unit impulse is a signal

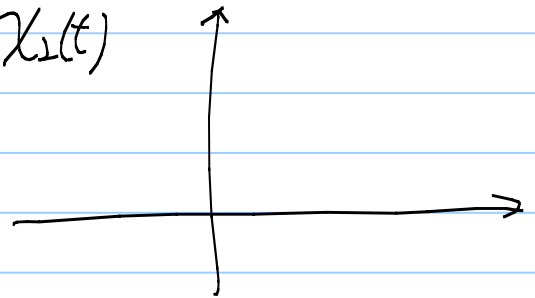
Example: Q1: Plot $x_1(t) = 2\delta(t-1)$, $x_2(t) = 3U(t-1) - 3U(t-2)$

$$x_3(t) = x_1(t) + x_2(t).$$

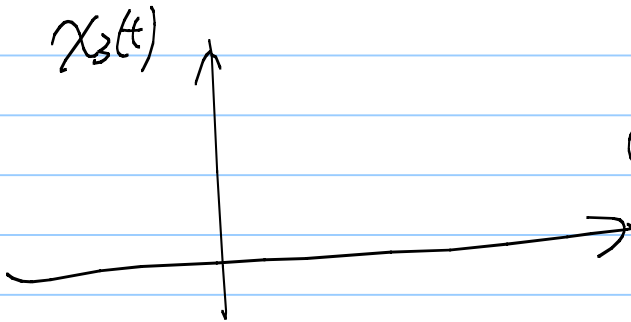
Ans: $x_1(t)$



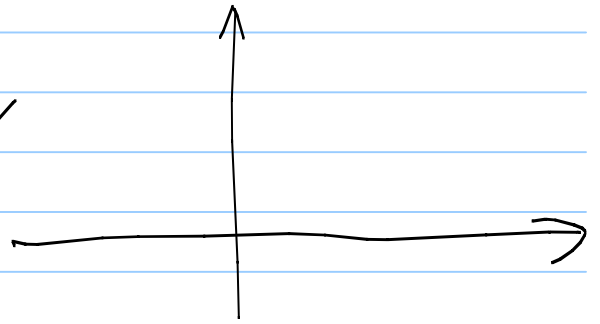
$x_2(t)$



$x_3(t)$



or



Q2: Plot $y(t) = \int_{-\infty}^t x_3(s) ds$

Ans:

P.042

Lined writing area with horizontal blue lines and a vertical red margin line on the left side.

* Properties of CT unit step / impulse

- Conversion between $u(t)$ & $\delta(t)$

①

②

③

- Integration of $\delta(t)$

- Sampling Property

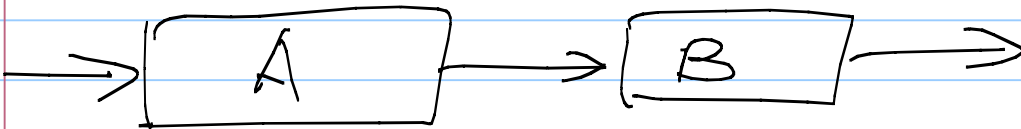
- Decomposing $x(t)$ as a weighted integral

For this semester, our test signals are either _____ or _____

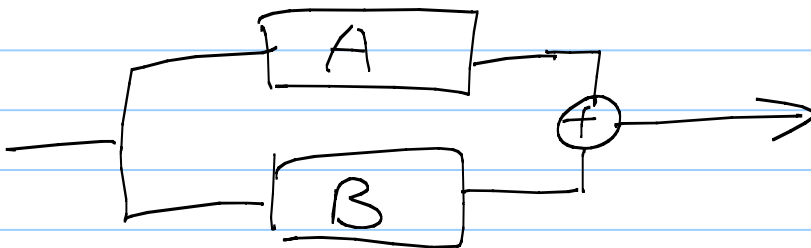
Enough of signals. Let us focus on the systems.

* Systems can be interconnected

Sys 1: Serial concatenation



Sys 2: Parallel concatenation



Sys 3: Serial / parallel concatenation

