2-1 0-3-(실험. 1, 2 43名 83%

2-2 물리전자 ← 1, 2. 42名中 60%

EECE 233 Fall 2014 Lec #21

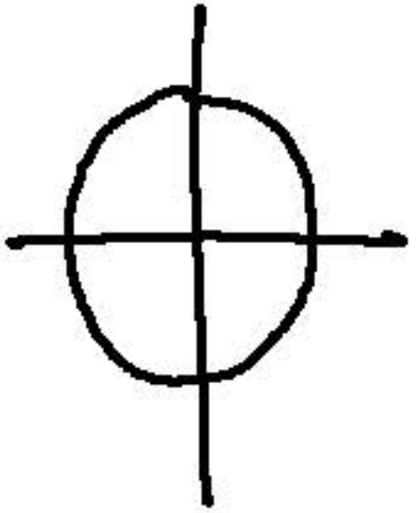
Announcements

1. Midterm Exam 3 on Friday next week.
2. 재시험 " " " "
3. Supplementary Lecture on this Friday.

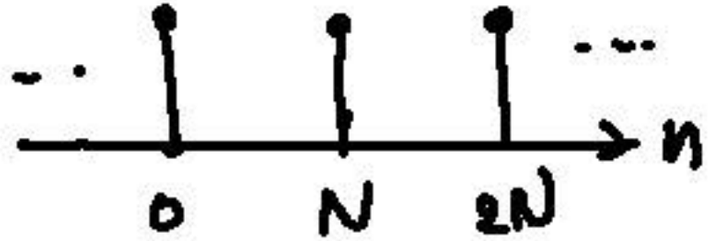
Review

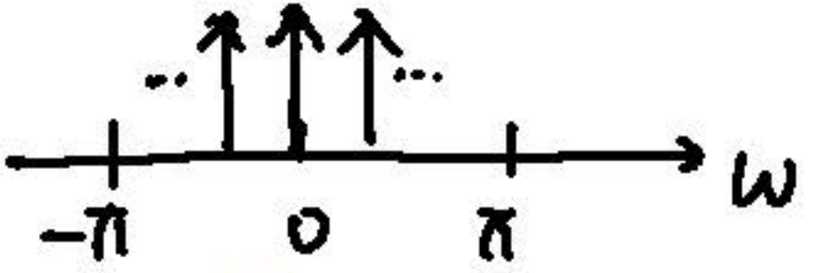
$$x[n] = \frac{1}{2\pi} \int_{\langle 2\pi \rangle} X(e^{j\omega}) e^{j\omega n} d\omega$$

$$X(e^{j\omega}) = \sum_{n=-\infty}^{\infty} x[n] e^{-j\omega n}$$



- $e^{j\omega_0 n} \xleftrightarrow{FT} 2\pi \sum_{n=-\infty}^{\infty} \delta(\omega - \omega_0 - 2\pi n)$

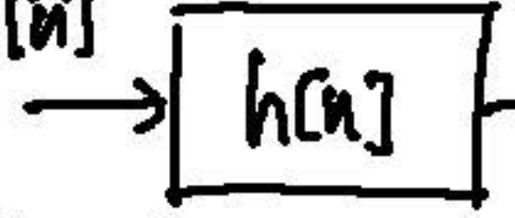
- 

$\xleftrightarrow{FT}$


$N \longleftrightarrow \frac{2\pi}{N}$

"with respect to x"

Preview



$y[n] = \frac{1}{2\pi} \int_{\langle 2\pi \rangle} X(e^{j\omega}) H(e^{j\omega}) e^{j\omega n} \, d\omega$

$= \frac{1}{2\pi} \int_{\langle 2\pi \rangle} X(e^{j\omega}) e^{j\omega n} \, d\omega$

$F'(x) = f(x)$ $\quad F(x) = \int f(x)\,dx + C$

$$H(z) = \frac{b_2 z^2 + b_1 z + b_0}{a_3 z^3 + a_2 z^2 + a_1 z + a_0} = \frac{b_2 z^2 + b_1 z + b_0}{a_3 (z - z_1)(z - z_2)(z - z_3)}$$

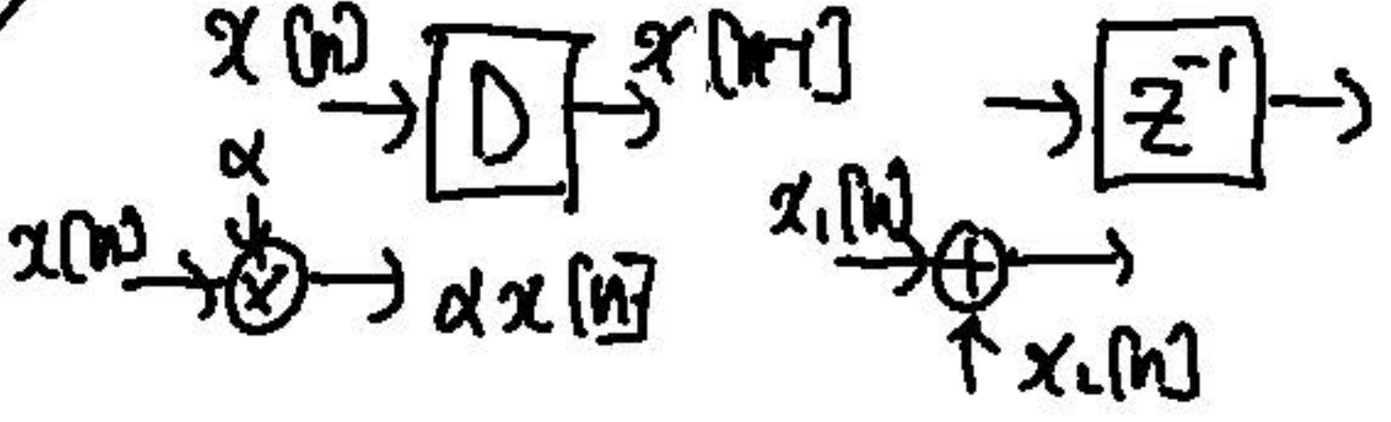
$z = e^{j\omega}$

$$= \frac{A}{z - z_1} + \frac{B}{z - z_2} + \frac{C}{z - z_3}$$

Solve → Visualize

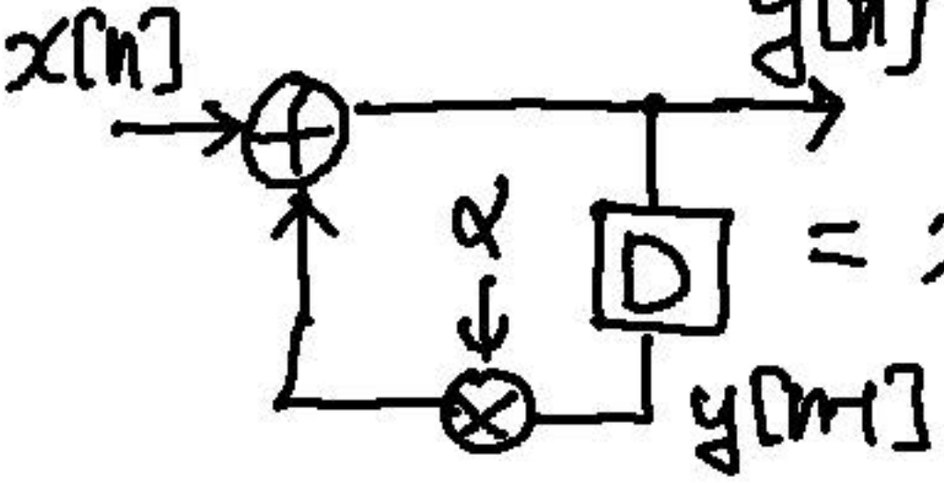
Solve → Simplify

Q. $y[n] - \alpha y[n-1] = x[n]$. Sketch the system BD.



Q. Given the LCCDE $y[n] - \alpha y[n-1] = x[n]$, $\forall n$ that describes the I/O relation of a DT LTI system, sketch the block diagram by using delay component(s), constant multiplier(s), and adder(s).

A.



$= x[n] + \alpha y[n-1]$

"Working under pressure"