EECE 233 Fall 2014 Lec. #31

Announcements

1. Midterm 3 re-taking today from 19:30 till 21:30 @ LG105
2. Final exam on next Monday.
3. Course evaluation
4. Grade will be posted on the wall of LG 409 upon email notice.

Final Exam Preview

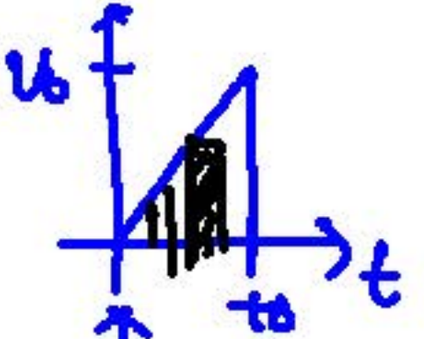
1. T/F

2-3. Signals & Systems Q&A 1-pond 15 problems.

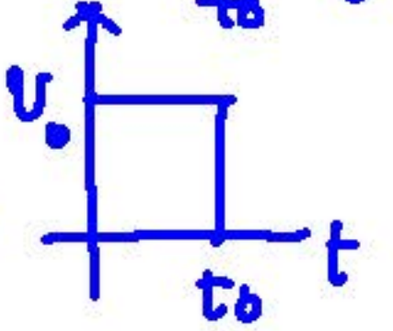
4. linear system & I/O relation.

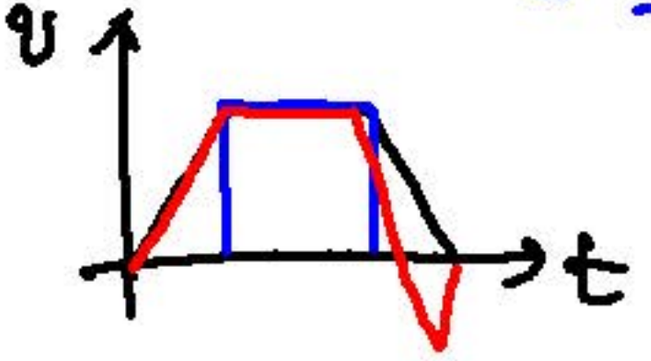
1 ZTF of $h[n] * h[-n]$.

9. Bode plot.
Sampling & interpolation.
LCCDE & DZT.
up/down sampling.
⋮



Save





FM (Frequency M)

AM (Amplitude M)

- Amplitude
- Angle

real bandpass signal.

≡ complex baseband ".

$S = a + jb$

$= re^{j\theta}$

$m(t) \cos \omega_c t$

$\cos(\omega_c t + \theta(t))$

- phase
- freq.

$c \cdot m(t)$

$$\theta(t) = k\int_{-\infty}^{t} u(t)\,dt = kt \quad t \geq 0$$

$\theta(t)$: $w_c t + \theta_0$

$$y(t) = \cos(w_c t + \theta_0 + kt) \quad t > 0$$

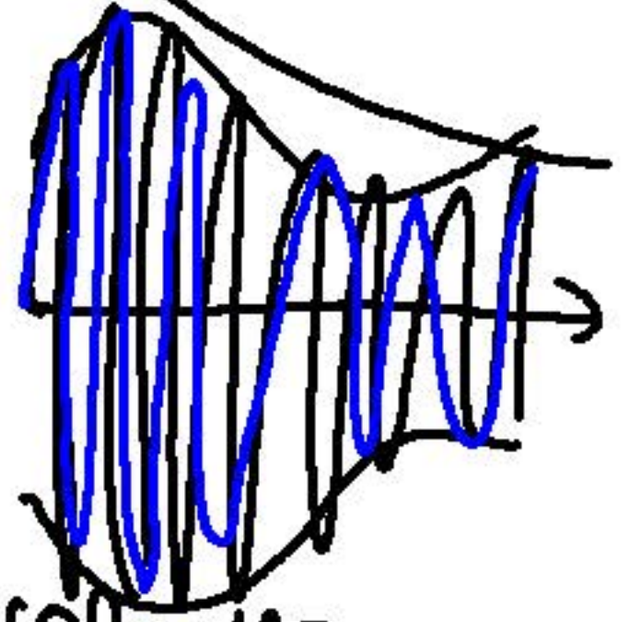
$$= \cos((w_c + k)t + \theta_0).$$

Q. Differentiate

$$y(t) = \cos\left(w_c t + \theta + k\int_{-\infty}^{t} m(\tau)\,d\tau\right).$$

A. $y'(t) = -\sin(\;\;)\left(w_c + k m(t)\right)$

PRS Tx. Return Today.



88-108 MHz.