

Dr. Ali Hussein Muqaibel

Name:

Ver.1

Evaluate the following integral $\int_{-1}^{\infty} \cos(2\pi t) \delta(t - 2) dt$

(2 points)

$= \cos(2\pi \cdot 2) = \cos(4\pi) = 1$

What is the fundamental period of the given signal? (Assume units of seconds for the t -variable)

$g(t) = \cos(2t) + \sin(4t)$

(2 points)

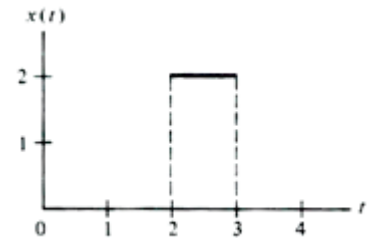
$\omega_1=2, \omega_2=4, \omega$ for the sum= 2
 f for the sum= $\omega/2\pi=1/\pi$
 $T=1/f=\pi$ seconds

Find the energy and power of the following signal $x(t)$

(3 points)

$P= 0$ (Finite Energy)

$E=$ Area under the squared of the curve= 4



Is it an energy signal or power signal? **Energy**

Sketch $-2\Pi(1-2t)$.

(3 points)

$= -2\Pi(-2(t-1/2))$.

