

Homework #2**Review of Signals and Systems (cont'd)**

Total Points 100

Reading Assignment: Chapters 2, 3 and Related Course Notes

Assigned: Monday January 30, 2006**Due: Monday February 6, 2006****Problem 1: (20 points)**

Classify the following signals into energy-type, power-type, and neither energy-type nor power-type signals. For energy-type and power-type signals find the energy or the power content of the signal.

(a) $x(t) = e^{-t} \cos t \times u(t)$

(c) $x(t) = A \cos 2\pi f_1 t + B \cos 2\pi f_2 t$

(b) $x(t) = \begin{cases} Kt^{-\frac{1}{4}}, & t > 0 \\ 0, & t \leq 0 \end{cases}$

Problem 2: (20 points)

Problem 2.1-6 (a), (c)

Problem 3: (20 points)

Problem 2.3-2

Problem 4: (20 points)

Problem 2.4-1 (c), (d)

Problem 5: (20 points)

Problem 2.8-4 (d), (e)