1. For each signal, determine if it is periodic, and if it is, find the fundamental period:

(a) $x(t) = 2 \cos(2t) - 3 \sin(3t)$ (b) $x(t) = e^{(j2.4t)}$ (c) x(t) = u(t)(d) $x(t) = 2 \cos(2.1 \pi)$ (e) $x(t) = e^{(j2.4t)} + 2 e^{(j3.6t)}$ (f) $x(t) = \cos(5 t^2)$ (g) $x(t) = (-t)^3$ (h) $x(t) = t u(t) + \sin(\pi t/2)$ (i) $x(t) = e^{(j2\pi t)} + 1$

2. Categorize each of the following signals as a finite energy signal or a finite power signal:



3. For the triangular pulse signal x(t) shown below, sketch each of the following signals derived from x(t):



4. Decompose the following signals into even and odd parts:

(a) $x(t) = cos(2t) + sin^{2}(3t)$ (b) x(t) = u(t)(c) x(t) = t sin(t)

- Assigned: Sunday June 7, 2015
- Deadline: Thursday June 11, 2015