

1. Given the following signal:

$$x(t) = \begin{cases} 2t & 0 \leq t \leq 2 \\ -2t + 8 & 2 < t \leq 4 \\ 0 & \text{otherwise} \end{cases}$$

Sketch the following signals

a)  $x_1(t) = \text{even}\{x(t - 4)\}$

b)  $x_2(t) = \text{odd}\{x(t + 2)u(t)\}$

## **Problem 2**

Determine for the following signals whether (Periodic or Aperiodic)

$$x[n] = \left(\frac{1}{2}\right)^{2n} u[n]$$

$$x[n] = e^{j[\frac{\pi}{2}n - \frac{\pi}{8}]}$$