Prob. 1

Determine and sketch the even and odd parts of the signals depicted in Figure P1.23. Label your sketches carefully.

(a)

(b)

(c)

The line $x(t) = -2t$ for $t < 0$

The line $x(t) = t$ for $t > 0$

Figure P1.23
Prob. 2  A continuous-time signal $x(t)$ is shown in Figure P1.21. Sketch and label carefully each of the following signals:

(a) $x(t - 1)$  
(b) $x(2 - t)$  
(c) $x(2t + 1)$  
(d) $x(4 - \frac{t}{2})$
Prob. 3 A discrete-time signal is shown in Figure P1.22. Sketch and label carefully each of the following signals:

(a) $x[n - 4]$  
(b) $x[3 - n]$  
(c) $x[3n]$  
(d) $x[3n + 1]$  

Prob. 4: DSP First, 2.1, use MATLAB to plot.
Prob. 5: DSP First, 2.6
Prob. 6: DSP First, 2.7 (a)(b)(c), confirm your answers with MATLAB
Prob. 7: DSP First, 2.8
Prob. 8: DSP First, 2.9, use MATLAB to plot.
Prob. 9: DSP First, 2.16
Prob. 10: DSP First, 2.18