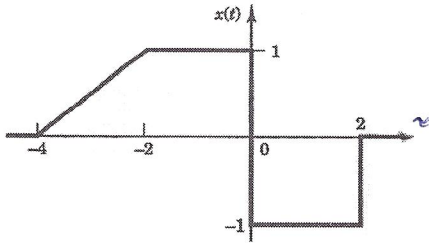


Name: KEY

Ver.1

For the shown signal $x(t)$, plot $2x(3-t)+1$

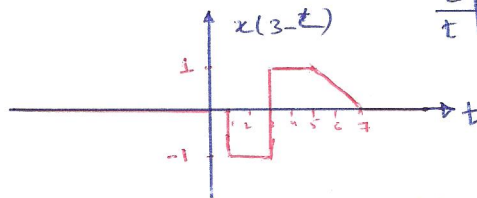
(4 points)



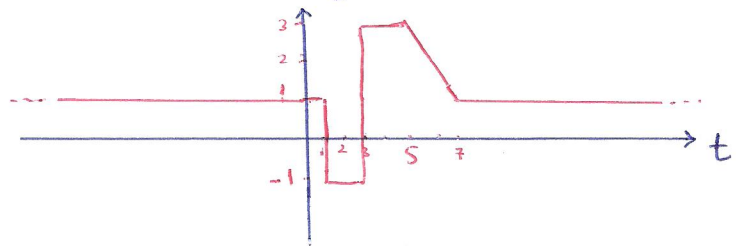
First let us sketch $x(3-t)$

$$\tau = 3 - t \Rightarrow t = 3 - \tau$$

τ	-4	-2	0	2
t	7	5	3	1

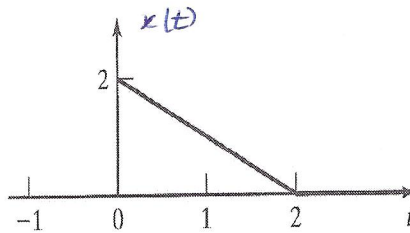
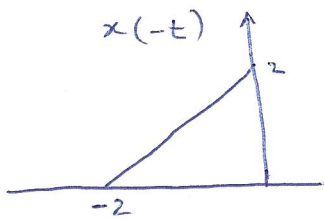


Amplitude scale by 2 and shift up by 1 unit

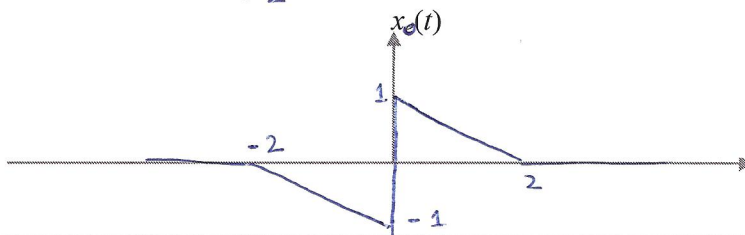
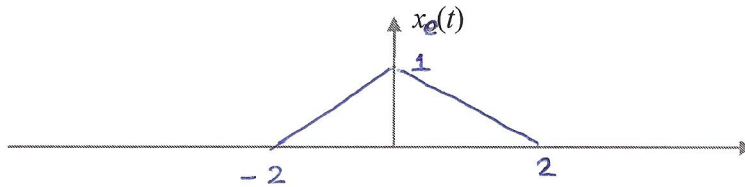


For the shown signal, plot the even and odd parts of the signal. Show all important values on both sketches

(4 points)



$$x_e(t) = \frac{1}{2} [x(t) + x(-t)]$$



$$x_o(t) = \frac{1}{2} [x(t) - x(-t)]$$

Evaluate the following integral $\int_{-1}^{\infty} \cos(4\pi t) \delta(t-5) dt$

multiples of 2π

Can be removed.

(2 points)

$$= \int_{-1}^{\infty} \cos(4\pi(5)) \delta(t-5) dt = \cos(20\pi) = \cos(0) = 1$$

← inside the limits

Most people quit. I will not quit. I am a fighter. I can do it!