Problem 1.22   Generate plots for each of the following functions over the time span from -4 s to 4 s:
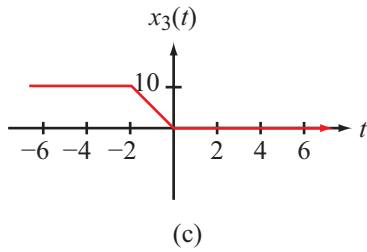
(a) $x_1(t) = 5r(t+2) - 5r(t)$

(b) $x_2(t) = 5r(t+2) - 5r(t) - 10u(t)$

(c) $x_3(t) = 10 - 5r(t+2) + 5r(t)$

(d) $x_4(t) = 10\text{rect}\left(\frac{t+1}{2}\right) - 10\text{rect}\left(\frac{t-3}{2}\right)$

(e) $x_5(t) = 5\text{rect}\left(\frac{t-1}{2}\right) - 5\text{rect}\left(\frac{t-3}{2}\right)$

Solution:

(c)

(c) Starting at 10, ramps down with slope -5 at $t = -2$, then levels off at $t = 0$.