

Quiz 2

September 13, 2006

1. Sketch the signal $y(t) = x(t) * h(t)$ for

$$x(t) = u(t) - u(t - T_1), \quad T_1 > 0$$

$$h(t) = u(t - T_2), \quad T_2 > 0.$$

Make sure you carefully label your graph.

2. Consider the signals

$$x[n] = u[n] + u[-n - 1] \text{ and}$$

$$h[n] = \delta[n] - \delta[n - 1].$$

- (a) Sketch $x[n]$ and $h[n]$.
(b) Determine $y[n] = x[n] * h[n]$.
(c) Sketch $y[n] = u[n] * h[n]$.