Quiz 2
September 13, 2006

1. Sketch the signal \( y(t) = x(t) \ast h(t) \) 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

\[
x[n] = u[n] + u[-n - 1]
\]
\[
h[n] = \delta[n] - \delta[n - 1].
\]

(a) Sketch \( x[n] \) and \( h[n] \).

(b) Determine \( y[n] = x[n] \ast h[n] \).

(c) Sketch \( y[n] = u[n] \ast h[n] \).