EE 30344 - Signals and Systems I
Quiz 2
September 13, 2006

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

$$
\begin{aligned}
& x(t)=u(t)-u\left(t-T_{1}\right), \quad T_{1}>0 \\
& h(t)=u\left(t-T_{2}\right), \quad T_{2}>0
\end{aligned}
$$

Make sure you carefully label your graph.
2. Consider the signals

$$
\begin{aligned}
& x[n]=u[n]+u[-n-1] \text { and } \\
& h[n]=\delta[n]-\delta[n-1]
\end{aligned}
$$

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

