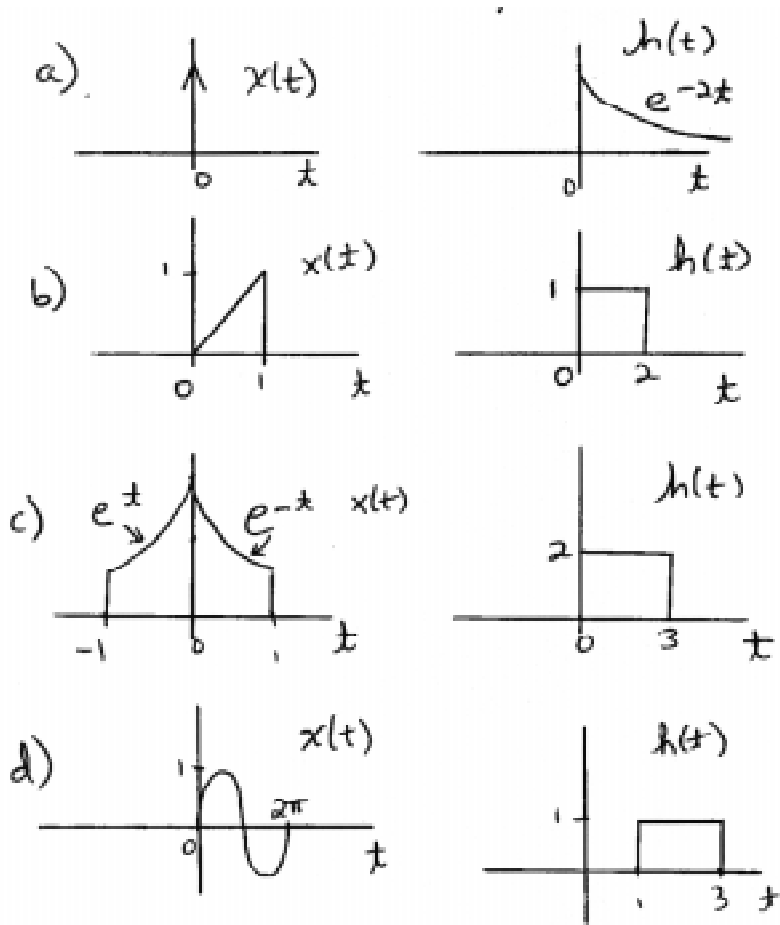


Continuous Time Convolution:

1. Solve the following for $y(t)=x(t)*h(t)$

$x(t) = u(t)-u(t-4)$; $h(t) = r(t)$

2. Convolve the following:



3. Find the response of a system to an input of $x(t)=2u(t-10)$ if $h(t)=\sin(2t)u(t)$.

4. A linear time invariant system has the following impulse response:

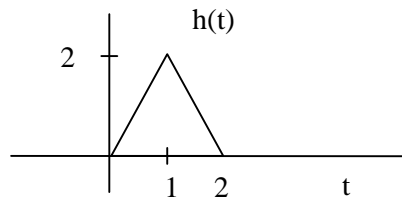
$$h(t) = 2e^{-at}u(t)$$

Use convolution to find the response $y(t)$ to the following input:

$$x(t) = u(t) - u(t-4)$$

Sketch $y(t)$ for the case when $a = 1$.

5. Determine $y(t) = x(t)*h(t)$ where $x(t) = u(t)$ and



6. Compute $x(t)*v(t)$

