

EE 341 - Homework 3

Due Sept. 7, 2018

1. Explain why the impulse response of the system $h(t)$ (or the signal $x(t)$) has to be flipped in convolution.

$$y(t) = x(t) * h(t) = \int_{-\infty}^{\infty} x(\tau)h(t - \tau)d\tau$$

$$y(t) = h(t) * x(t) = \int_{-\infty}^{\infty} h(\tau)x(t - \tau)d\tau$$

2. Review Example 2-3, **RC Circuit Response to Triangular Pulse**, and evaluate the integrals for v_{out} for the four cases.