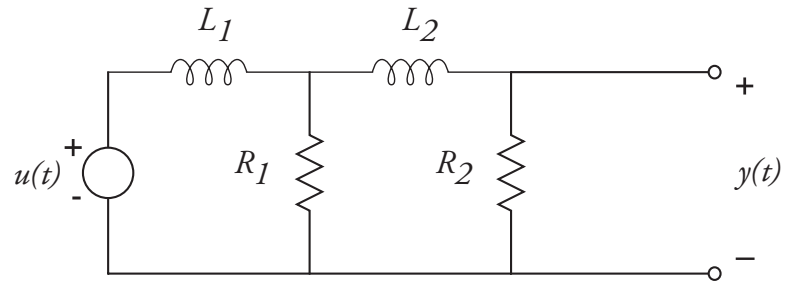


Problem S1 (Signals and Systems)

1. Find and plot the step response of the system



where $L_1 = L_2 = 2$ H, $R_1 = 2$ Ω , and $R_2 = 3$ Ω .

2. For the input signal

$$u(t) = \begin{cases} 0, & t < 0 \\ 2, & 0 \leq t < 1 \\ -1, & t \geq 1 \end{cases}$$

find and plot the output $y(t)$, using superposition.