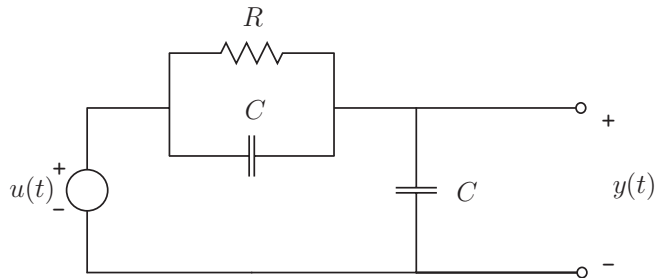


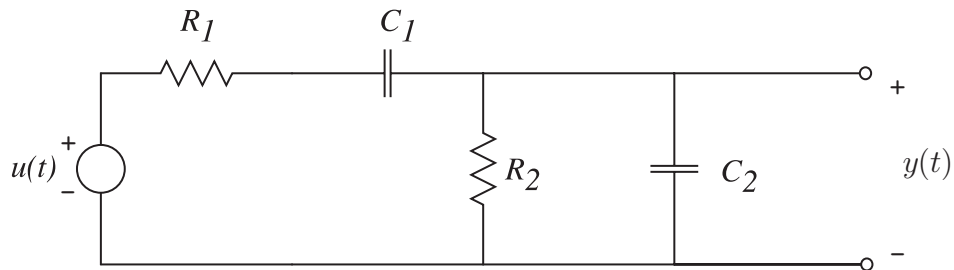
Problem S9 (Signals and Systems)

- (a) Find and plot the step response of the circuit below, using Laplace transform techniques.



Assume that  $R = 2 \Omega$ , and  $C = 0.25 \text{ F}$ . Note: This is a problem that's tricky to do using ordinary differential equation methods — Can you see why?

- (b) Find and plot the step response of the circuit below, using Laplace transform techniques.



Assume that  $R_1 = R_2 = 2 \Omega$ ,  $C_1 = 0.2 \text{ F}$ , and  $C_2 = 0.3 \text{ F}$ .