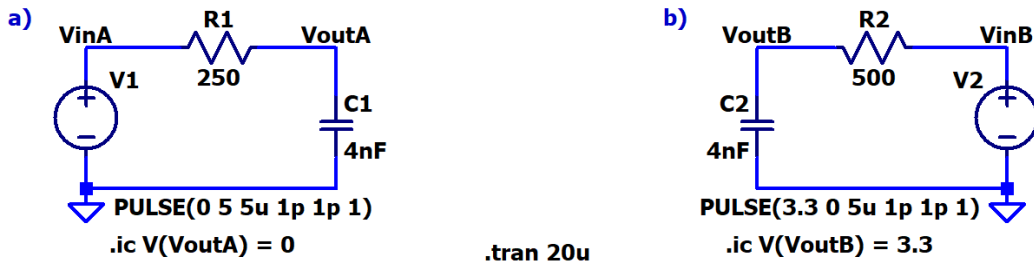


HW12 – Due Wednesday, March 30
EE220 – Circuits I
Spring 2022

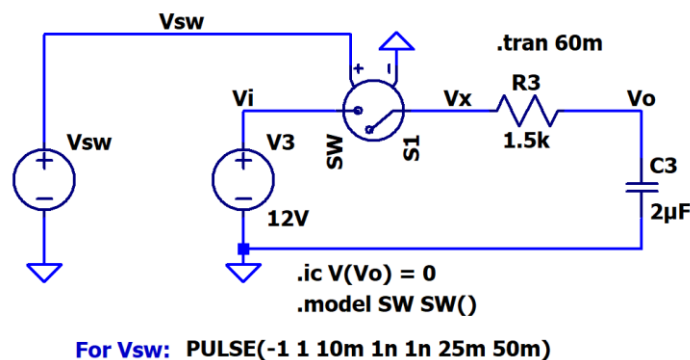
To get full credit:

- Show your work.
- Put a box around each of your answers.
- Make sure to **follow all instructions**.

1. Sketch the waveforms (yes, by hand) for **VinA**, **VoutA**, **VinB**, and **VoutB** in the following circuits. The best way to sketch the output waveforms is to plot specific datapoints (at multiples of the RC time constant after charging/discharging begins) and then connect the dots to draw a waveform. Verify that your waveforms are correct using LTspice. (6 points)



2. Repeat problem 1 for **Vi**, **Vx**, and **Vo** in the following RC circuit. Verify that your waveform sketches are correct using LTspice. (4 points)



3. In your own words, describe the operation of the circuit in problem 2. Without removing or changing any components in the circuit, devise a plan to discharge the capacitor in the circuit after the switch S1 opens at $t = 35ms$. Why doesn't it discharge in the circuit given? (4 points)