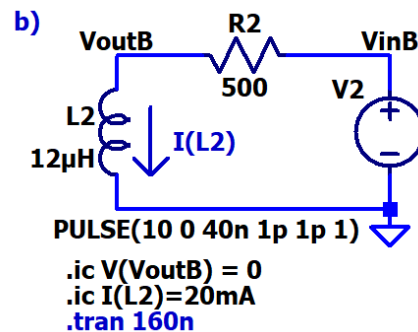
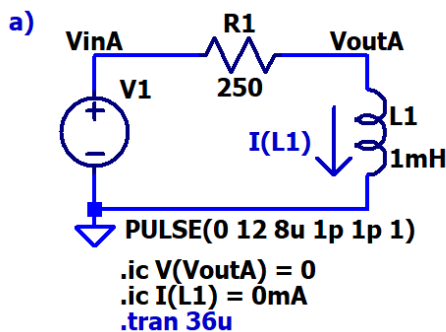


**HW15 – Due Monday, April 11**  
**EE220 – Circuits I**  
**Spring 2022**

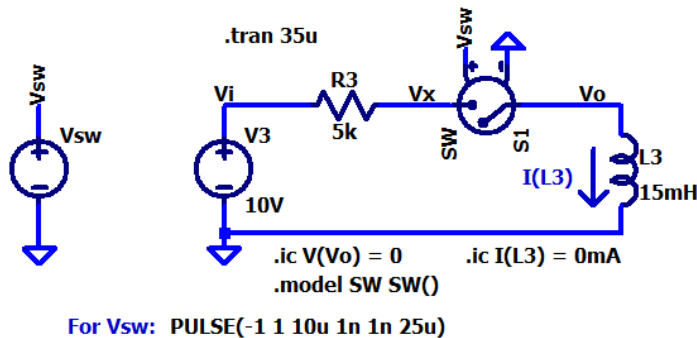
To get full credit:

- 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 **Vin**, **Vout**, and **I(L)** in each of the circuits given below. Verify that your waveforms are correct using LTspice. (6 points)



2. Repeat problem 1 for **Vi**, **Vx**, **Vo**, and **I(L3)** in the following RC circuit. Verify that your waveform sketches are correct using LTspice. (4 points)



3. Re-run the simulation from problem 2 but change the transient time to 40μs. Describe, in your own words, what is happening in the circuit. What happens to the Vo node? Without removing or changing (you can add components! Please do!) any components in the circuit, devise a plan to de-energize the inductor properly in the circuit after the switch S1 opens at t = 35ms. Please show your findings using clear LTspice plots. (4 points)