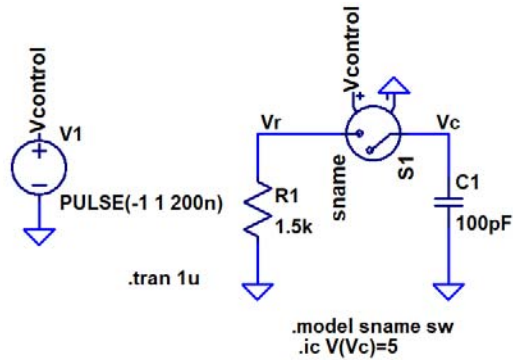


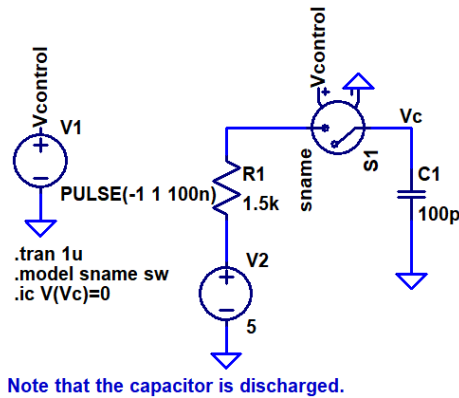
H.W. #12 EE 221 Spring 2019

Show your work for credit and put a box around each of your answers (follow the hw guidelines!)

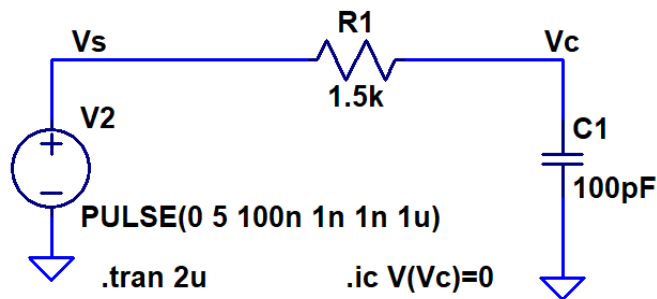
- Hand calculate V_c and V_r in the following circuit. Compare your hand calculations to simulation results. Note that the switch closes at 1 ms. Make sure you understand how to use switches since we'll use them often. (2 points)



- Write the equation describing the voltage across the capacitor in the following circuit. Use LTspice to verify your answer. (2 points)



- Write the equations describing the voltage across the capacitor, V_c , in the following circuits for both the rising and falling edges of the input pulse. Again, use LTspice to verify your answer. (4 points)



- Repeat problem 3 if the resistor and capacitor positions are swapped. (4 points)