ECE 320 - Homework #7

SCR, Op-Amp Amplifiers. Due Monday, February 26th, 2018

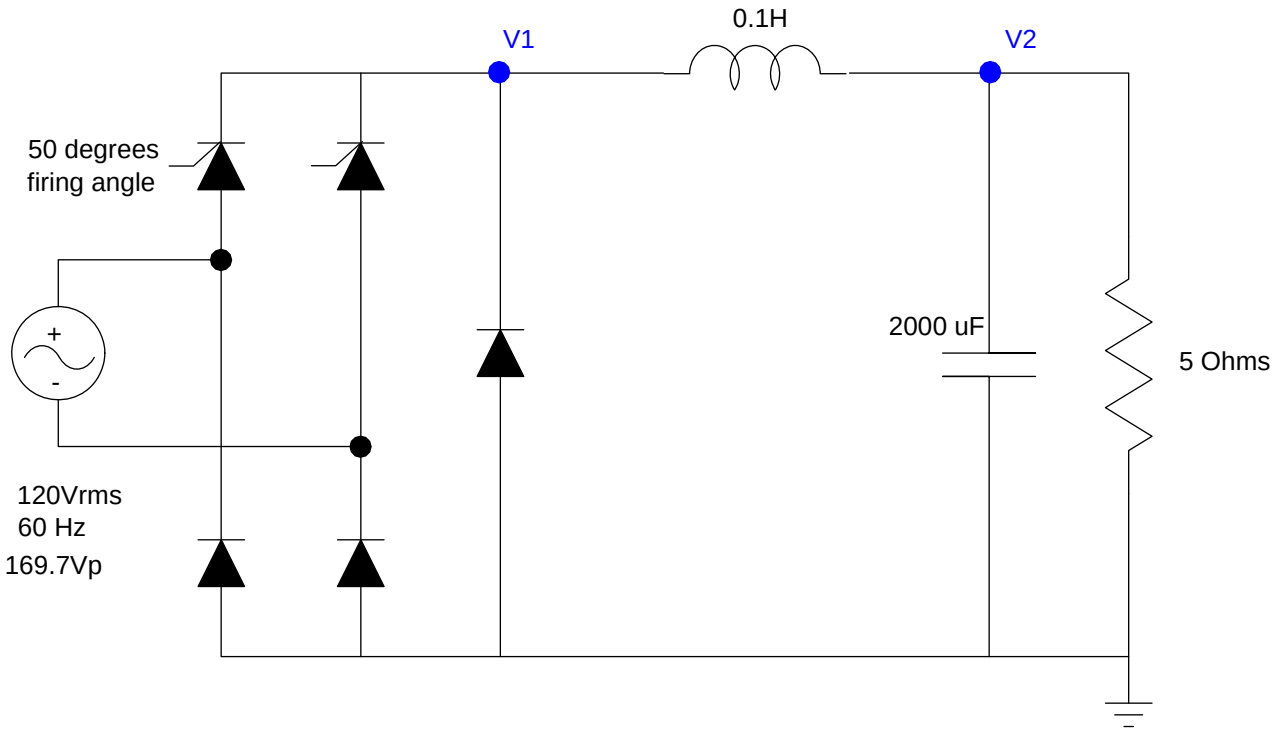
SCR

1) Assume a firing angle of 50 degrees. Determine the voltages (DC and AC) at V1 and V2.

~~2) Check your answer in PartSim~~ (skip)

3) Determine the firing angle, C, and L so that

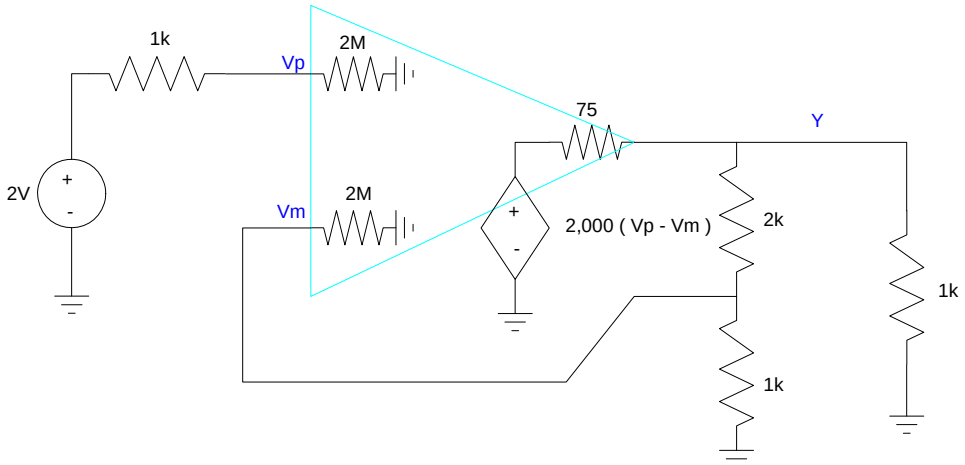
- The DC voltage at the load is 50V
- The ripple at the load is 1Vpp



(Over)

4) For the following op-amp circuit with a gain of 'only' 2000:

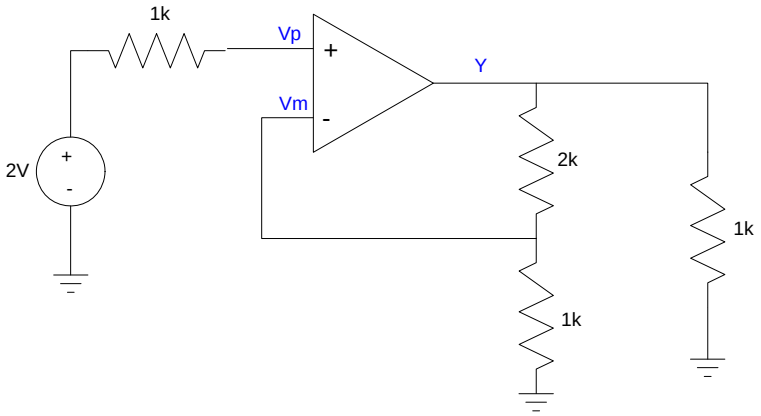
- a) Write the voltage node equations
- b) Solve for the voltages at Vp, Vm, and Y



5) For the following op-amp circuit

- a) Write the voltage node equations
- b) Solve for the voltages at Vp, Vm, and Y

Assume an ideal op-amp.



6) Assume ideal op-amps. Write the voltage node equations for the following circuit