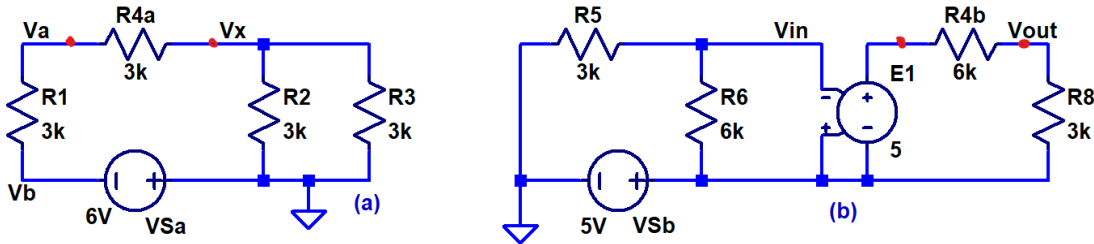
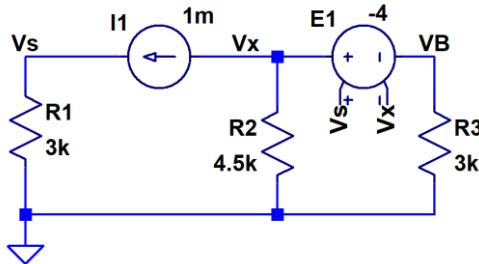


Show your work for credit!

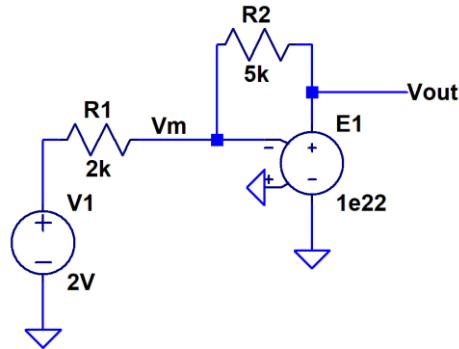
- Calculate the voltage across  $R_4$  in the below circuits. Next find the Thevenin and Norton equivalent circuits at the port indicated by the red dots in the below schematics (without  $R_4$  in the circuit). Show that your equivalent circuits are correct and then verify with LTspice. (6 points)



- Find the voltage  $V_B$  in the following circuit. Verify your answer with LTspice. (3 points)



- Find  $V_{out}$  in the following circuit. For all intents and purposes you can assume the gain of the VCVS is infinite. (3 points)



- Find  $V_{out}$  in the following circuit. Verify your answer with LTspice. As always, show your work for credit. (2 points)

