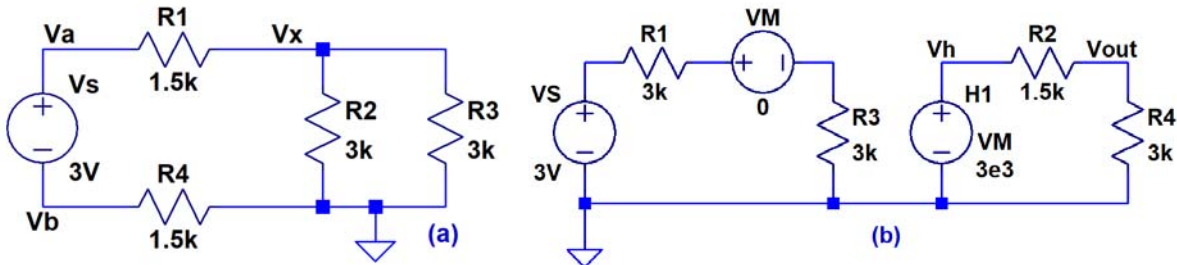
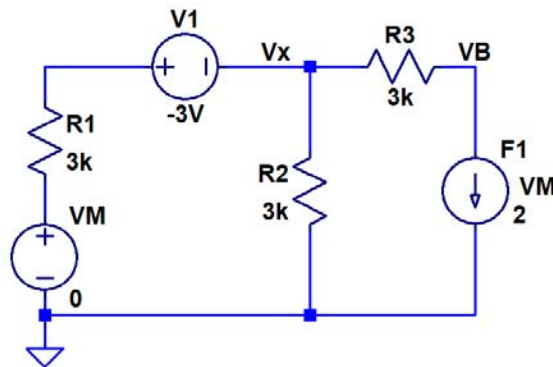


Show your work for credit!

- Calculate the voltage across V_x and V_{out} in the following circuits. Next find the Thevenin and Norton equivalent circuits at V_x and V_{out} . Show that your equivalent circuits result in the same V_x and V_{out} circuit as the original circuit seen below. Verify with LTSpice. (6 points)



- Calculate V_B in the following circuit and then verify your calculation using LTSpice. (3 points)



- Write an equation for V_{out} as a function of V_{in} in the following circuits. Plot V_{out} if V_{in} varies from -1 to 1 V in each circuit. Verify your answers, including your plots, using a DC sweep in LTSpice. (6 points)

