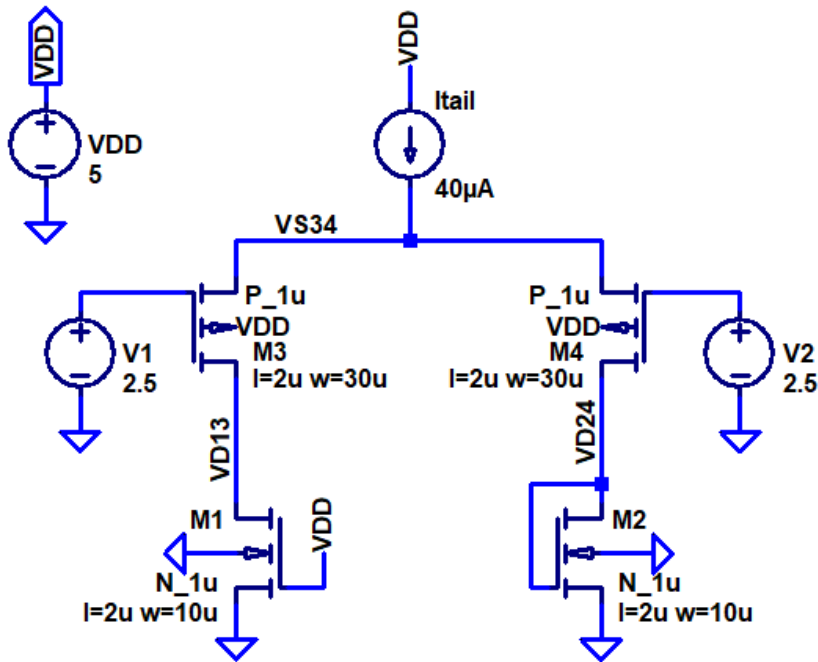H.W. #4 EE 420/ECG 620 Spring 2019

Show your work for credit and put a box around each of your answers (follow the hw guidelines!) Unless otherwise indicated use the book's long-channel (1 um) process.

1. Hand calculate the DC currents and voltages in the following circuit. Compare your hand calculated values to LTspice simulations and comment on the differences. (4 points)

2. In Fig. 9.9 what value of injected current I causes M4 to shut-off. Explain in your own words why. (2 points) (No LTspice for this one but feel free to simulate if you would like to.)

3. Show how to generate the plot seen in Fig. 9.12 using LTspice simulations. (2 points)