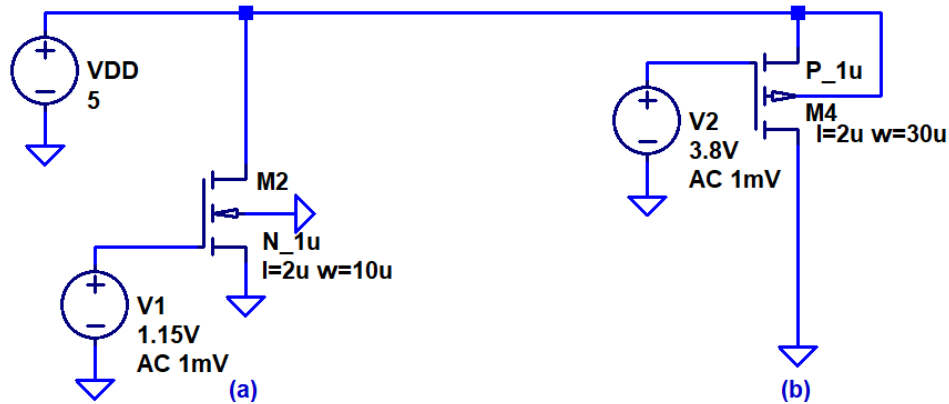


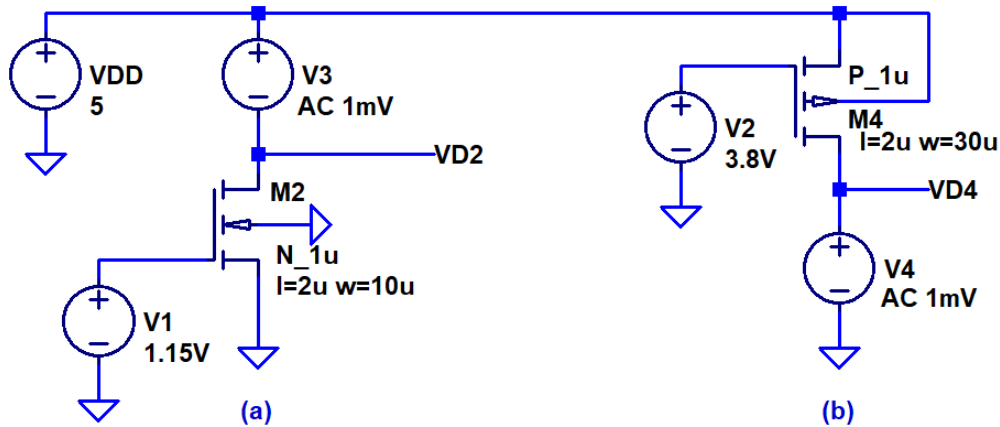
H.W. #3 EE 420/ECG 620 Spring 2020

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 μm) process.

1. Estimate the AC and DC currents flowing in the following circuits. Verify your hand calculations using an LTspice AC simulation. (4 points)



2. Repeat problem 1 for the following circuits. (4 points)



3. Repeat problems 1 and 2 but replace the 1mV AC source with a 1mV peak sinusoid at 1 kHz (no new hand calculations). Re-simulate to verify your answers using an LTspice transient simulation. (2 points, 0.5 points for each simulation)