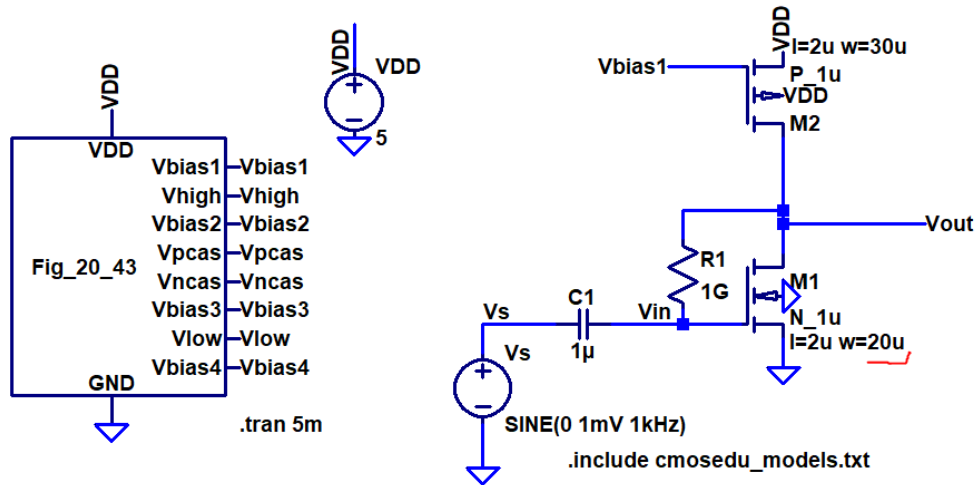


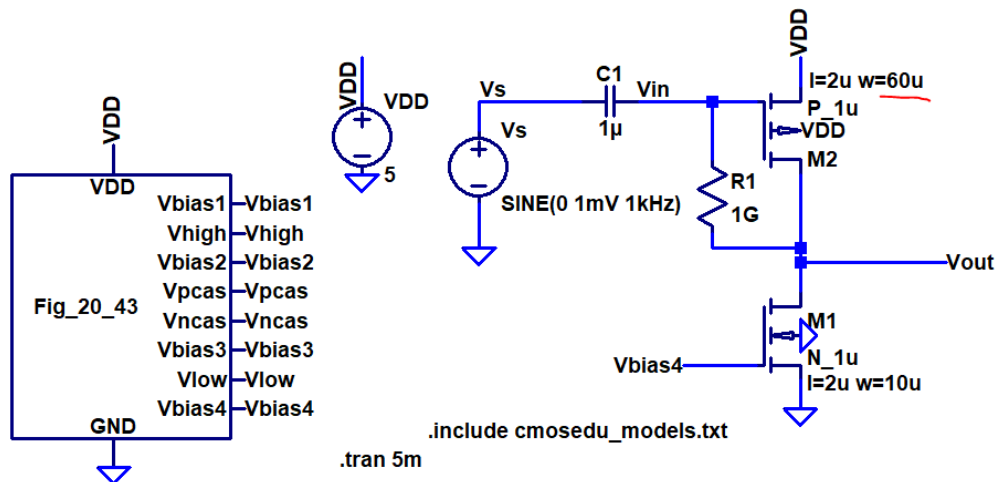
H.W. #13 EE 420/ECG 620 Spring 2020

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. Determine the AC and DC currents and voltages in the following CS amplifier. Verify your hand calculations using LTspice (3 points)



2. Determine the AC and DC currents and voltages in the following CS amplifier. Verify your hand calculations using LTspice (3 points)



3. Replace the current-source load transistors in the above schematics with a 100k resistor and determine the output voltage, both DC and AC. Verify your answers with LTspice. (4 points)
4. Replace the current-source load transistors in the above schematics with wires and determine the current in each wire. (2 points)