Tutorial 9

Q1. You are to design and simulate a MOSFET differential amplifier.
Instructions:
1) Draw the circuit schematics in LTSpice with the given circuit parameters
2) Add this command to model the MOSFET's ".model nmos1 nmos(Vto=1 KP=100e-6)
3) For input voltages take a sine signal with an amplitude 10mV and the phase difference between these two voltages should be 180 degrees.
4) Connect the substrate of both the MOSFET's to Vss.
5) Add the output labels on the out+ and out- side to log all necessary values for each MOSFET.
6) Compare all the values with theoretical values and calculate the theoretical and practical CMRR.