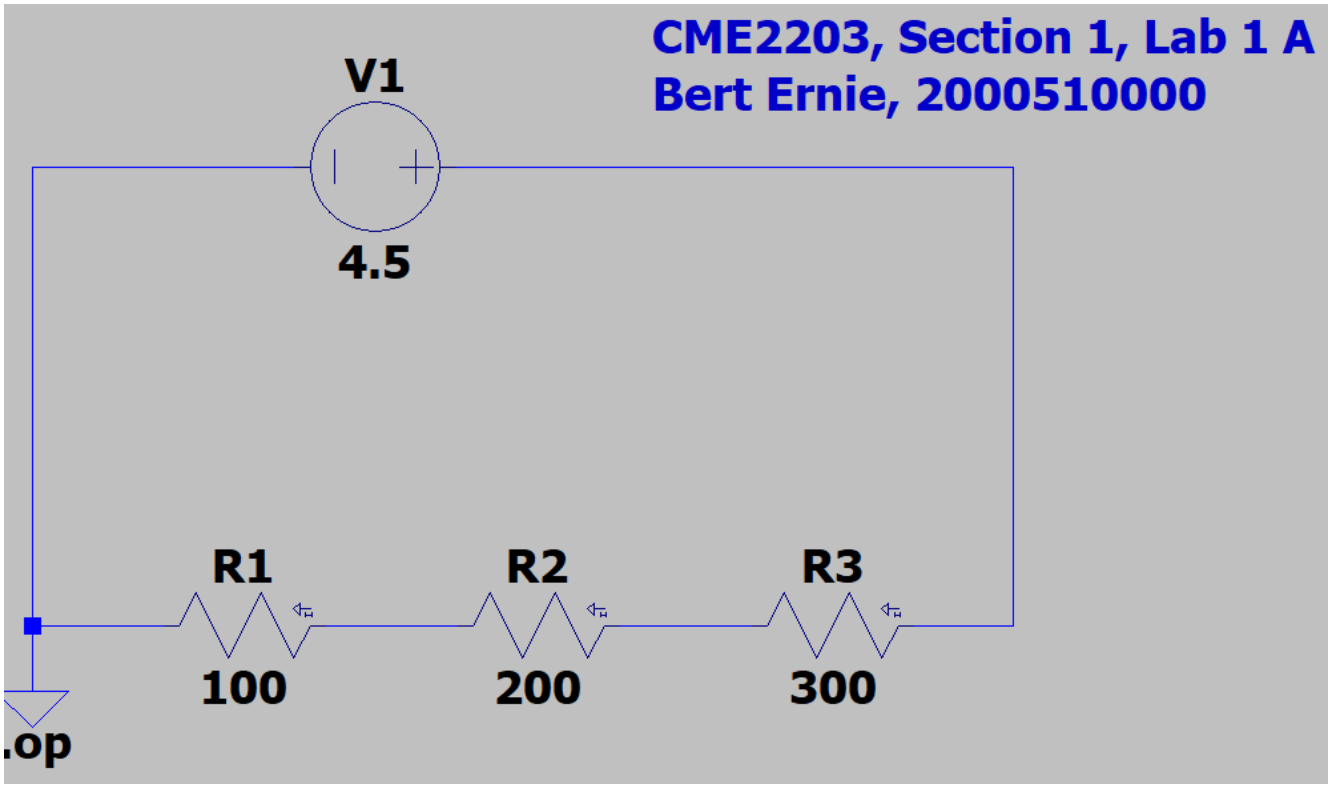
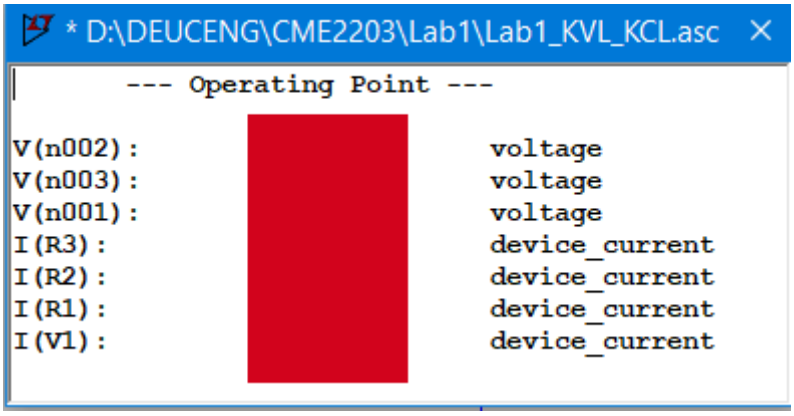
# CME2203 Lab1 Preliminary Assignment

☞ Prelab must be prepared INDIVIDUALLY and uploaded to SAKAI course page.

You have two parts in this prelab.

A) Draw the following circuit in LTspice. Place a text label that shows the course code, lab session, lab number, student name-surname and student number. Simulate and observe the voltages. Your directory path must also be visible on the simulation.



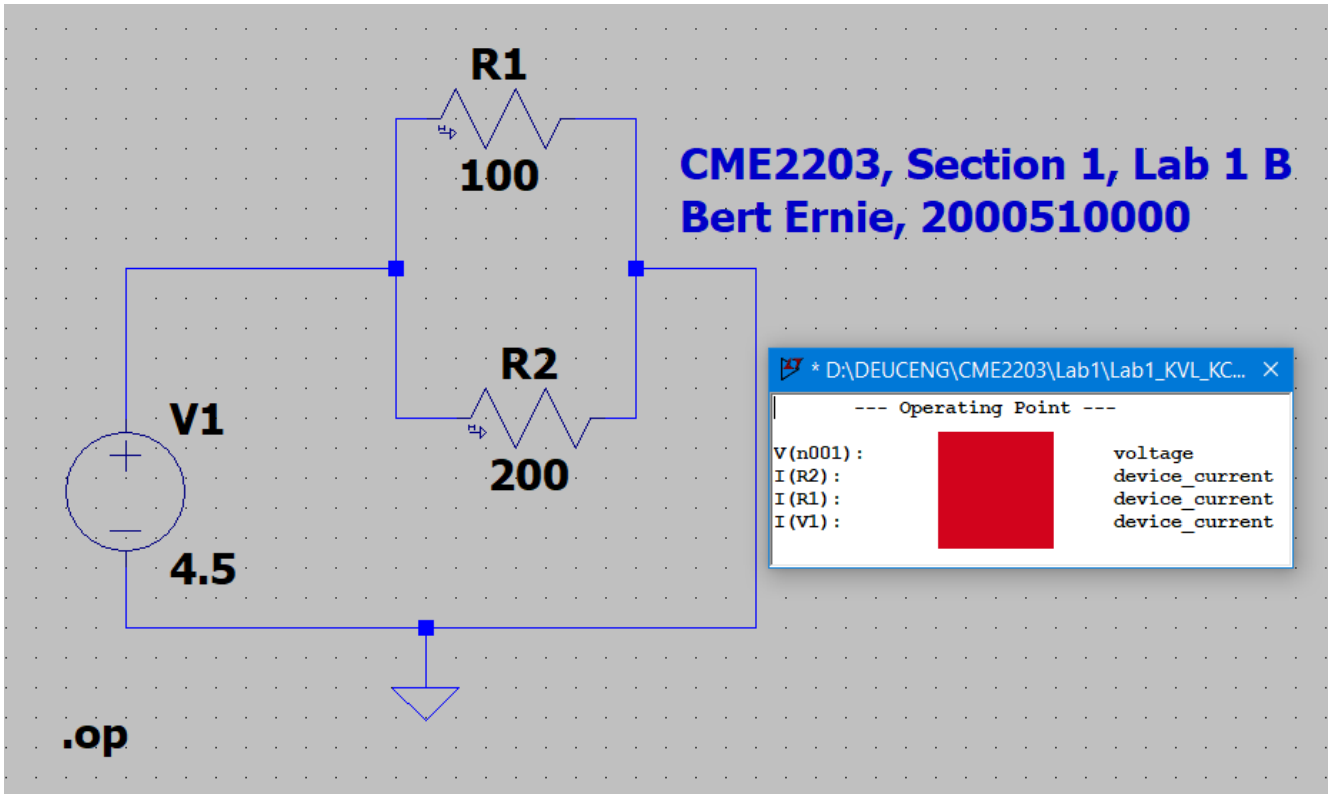




Note that you must check the nodes to find the voltages on the resistors using Run > DC op pt (Operation point). For example in our schematic, to find the voltage V3 on R3: node001 is 4.5v and node003 is 2.25V, so we have V(node001)-V(node003)=4.5-2.25=2.25V on R1.

The order on our schematic is R1 → node002, R2 → node003, R3 → node001 from left to right. You should consider your circuit design.

**Firstly find V1, V2, V3 and then calculate all powers generated and absorbed in the circuit.**

B) Draw the circuit shown below. Simulate it and observe the results.




Please note the currents going into the junction of R1 and R2 from left to right, and currents on R1 and R2. **Write the values and direction of these currents**. **How are they related?**

Similarly, **calculate all powers generated and absorbed in the circuit.**

**Upload** ONLY! ONE **PDF** file including **two screenshots of A and B and your calculations**. Screenshot should include circuit design and simulation screen (Operation point).

The file name should be as

`StudentNumber_Name-Surname_SessionNo_Lab1_Prelab.pdf`

That is all for the Lab1 Prelab.

**Thank you and Good Luck**