PART C: Pre-Lab
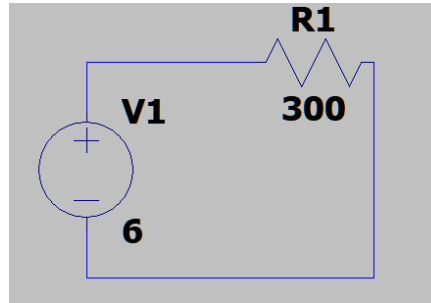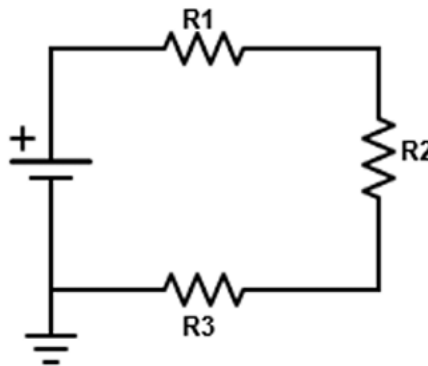
C.1 Design a circuit with one voltage source of 6V and one resistor such that the current flowing in the circuit is 20mA.

C.2 For a given resistor, what happens to the voltage drop across that resistor if the current Flowing through it is cut in half?

The voltage drop is also cut in half.

C.3 Assume R1 is 100Ω, R2 is 500Ω, R3 is 1kΩ, and 5V for your power supply.

Calculate the voltage drop across each resistor (V_{R1}, V_{R2}, and V_{R3}) and fill in the Table below.

Voltage	Calculated Voltage Drop
V_{R1}	0.3125
V_{R2}	1.5625
V_{R3}	3.125