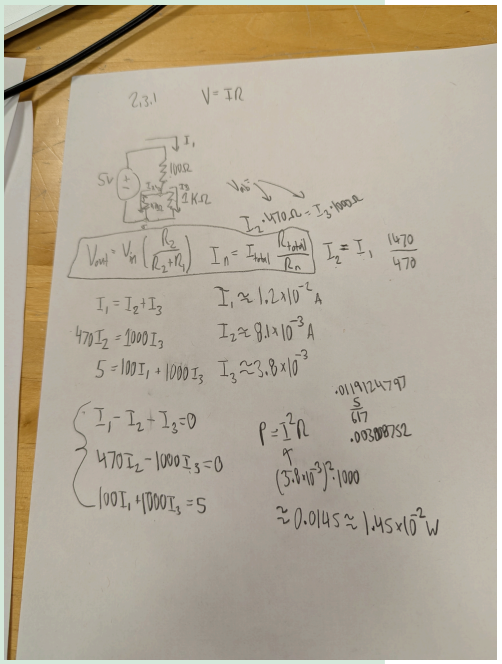
2.3.1: Series and Parallel Resistors and Equivalent Resistance (20 points total)

1. Expected power dissipated by 1KΩ resistor (pre-lab analysis). (5 pts)

Expected Power: 1.45E-2 Watts



2. Provide a schematic of the circuit below, including measured resistance values.

100Ω, 470Ω, 1KΩ, schematic on the right

3. Measured power dissipated by 1KΩ resistor (provide all measurements taken: actual resistance values, voltages, currents, power calculation). Comment on the agreement between measured and expected power dissipation – calculating a percent difference is always good! (8 pts)

1.0123KΩ, 462.62Ω, 98.74Ω, Our measured power dissipated by 1KΩ resistor is 1.41E-2W and our expected value was 1.45E-2W.

Percent difference = (1.41-1.45)/(1.45) *100 = -2.65% error

4. **DEMO**: Have a teaching assistant initial this sheet, indicating that they have observed your circuit's operation. (4 pts)

TA Initials: _____