BME 3511 Laboratory 3 Resistors in Series

Student Name: _____ Date Submitted:_____

Lab Partner(s):_____

Lab Procedure: Set up the follow circuits in series. Measure the resistances individually as well as the total resistance. Assume voltage source of 5 Volts. Calculate equivalent resistance, current, and voltage across each resistor. *Measure* and *record* the voltages as indicated.

Resistors	**Measured Resistance**	**Calculated Current**	**Calculated Voltage**	**Measured Voltage**
R1 = 1.2 kΩ R2 = 1.2 kΩ	R1 = R2 = RTotal =	I_{R1} = I_{R2} =	V_{R1} = V_{R2} = Total =	V_{R1} = V_{R2} = Total =
R1 = 1.2 kΩ R2 = 560 Ω	R1 = R2 = RTotal =	I_{R1} = I_{R2} =	V_{R1} = V_{R2} = Total =	V_{R1} = V_{R2} = Total =
R1 = 680 Ω R2 = 360 Ω R3 = 1.2 kΩ	R1 = R2 = R3 = RTotal =	I_{R1} = I_{R2} = I_{R3} =	V_{R1} = V_{R2} = V_{R3} = Total =	V_{R1} = V_{R2} = V_{R3} = Total =
R1 = 220 Ω R2 = 470 Ω R3 = 1.2 kΩ	R1 = R2 = R3 = RTotal =	I_{R1} = I_{R2} = I_{R3} =	V_{R1} = V_{R2} = V_{R3} = Total =	V_{R1} = V_{R2} = V_{R3} = Total =
R1 = 680 Ω R2 = 15 kΩ R3 = 560 Ω	R1 = R2 = R3 = RTotal =	I_{R1} = I_{R2} = I_{R3} =	V_{R1} = V_{R2} = V_{R3} = Total =	V_{R1} = V_{R2} = V_{R3} = Total =