## Name:

Date of Lab: $\qquad$
Lab Partner: $\qquad$
I. Your two resistor values: $R_{1}$ : $\qquad$ ohm
$R_{2}:$ $\qquad$ ohm
II. Series Circuit:

| Voltages |  | Currents |  |
| :--- | :--- | :--- | ---: |
| $V_{\mathrm{AH}}=V_{\mathrm{A}}-V_{\mathrm{H}}$ | V | $I_{\mathrm{AB}}$ | mA |
| $V_{\mathrm{AB}}=V_{\mathrm{A}}-V_{\mathrm{B}}$ | V | $I_{\mathrm{CD}}$ | mA |
| $V_{\mathrm{BC}}=V_{\mathrm{B}}-V_{\mathrm{C}}$ | V | $I_{\mathrm{EF}}$ | mA |
| $V_{\mathrm{CD}}=V_{\mathrm{C}}-V_{\mathrm{D}}$ | V |  |  |
| $V_{\mathrm{DE}}=V_{\mathrm{D}}-V_{\mathrm{E}}$ | V |  |  |
| $V_{\mathrm{EF}}=V_{\mathrm{E}}-V_{\mathrm{F}}$ | V |  |  |
| $V_{\mathrm{FG}}=V_{\mathrm{F}}-V_{\mathrm{G}}$ | V |  |  |
| $V_{\mathrm{GH}}=V_{\mathrm{G}}-V_{\mathrm{H}}$ | V |  |  |
| $V_{\mathrm{BE}}=V_{\mathrm{B}}-V_{\mathrm{E}}$ | V |  |  |


III. Parallel Circuit:

| Voltages |  | Currents |  |
| :--- | :---: | :---: | ---: |
| $V_{\mathrm{AH}}=V_{\mathrm{A}}-V_{\mathrm{H}}$ | V | $I_{\mathrm{AB}}$ | mA |
| $V_{\mathrm{BC}}=V_{\mathrm{B}}-V_{\mathrm{C}}$ | V | $I_{\mathrm{BD}}$ | mA |
| $V_{\mathrm{DE}}=V_{\mathrm{D}}-V_{\mathrm{E}}$ | V | $I_{\mathrm{BC}}$ | mA |
| $V_{\mathrm{AC}}=V_{\mathrm{A}}-V_{\mathrm{C}}$ | V | $I_{\mathrm{HG}}$ | mA |
| $V_{\mathrm{EH}}=V_{\mathrm{E}}-V_{\mathrm{H}}$ | V |  |  |



1. For the series circuit, what is the voltage drop across $R_{1}$ plus the voltage drop across $R_{2}$ ? How does this compare to the power supply voltage? Comment.
2. For the parallel circuit, what is the current in $R_{1}$ plus the current in $R_{2}$ ? How does this compare to the current coming directly out of the power supply $\left(I_{\mathrm{A}}\right)$ ? Comment.
3. For the series circuit, which resistor had the largest voltage drop: the larger resistor or the smaller one? Comment.
4. For the parallel circuit, which resistor carried the larger current: the larger resistor or the smaller one? Comment.
