## Wheatstone Bridge

## Procedure

1) Measure the resistance of the three $2.2 \mathrm{k} \Omega$ resistors. Insert them into the bridge between points A and $\mathrm{C}, \mathrm{B}$ and D , and C and D respectively according to the following diagram.

2) Connect a variable resistor where $R_{x}$ is located on the diagram.
3) Connect the voltmeter across $R_{x}$.
4) Adjust the variable resistor until the meter reads 0 on its most sensitive setting and record the resistance as $\mathrm{R}_{\mathrm{x}}$.
5) Calculate the expected value of $R_{x}$ using $R_{x}=R_{3}\left(R_{1} / R_{2}\right)$.
6) Calculate the percent difference.
$\mathrm{R}_{1}=$
$\mathrm{R}_{2}=$ $\qquad$ $\mathrm{R}_{3}=$ $\qquad$ Measured $\mathrm{R}_{\mathrm{x}}=$ $\qquad$
Calculated $\mathrm{R}_{\mathrm{x}}=$ $\qquad$ Percent Difference $=$ $\qquad$
