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| Name | **Unit 1 Factors Affecting Resistance (Practice Lab) Data Collection** | Date | |
| [**https://phet.colorado.edu/sims/html/resistance-in-a-wire/latest/resistance-in-a-wire\_en.html**](https://phet.colorado.edu/sims/html/resistance-in-a-wire/latest/resistance-in-a-wire_en.html) | | |  |

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| **Part A: Effect of Resistivity on Resistance** |
| **Table 1 – Effect of Resistivity on Resistance**  **Constant *\_L (length)\_\_* = \_\_\_\_\_\_\_\_\_\_; Constant \_*A (cross-sectional area)*\_\_ = \_\_\_\_\_\_\_\_\_\_**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Trial** | **Repetition** | **Resistivity (Ωcm)** | **Resistance**  **(Ω)** |  | | **1** | **1** |  |  |  | | **2** | **1** |  |  |  | | **3** | **1** |  |  |  | | **4** | **1** |  |  |  | | **5** | **1** |  |  |  | |

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| **Part B: Effect of Length on Resistance** |
| **Table 2 – Effect of Length on Resistance**  **Constant *\_ρ (Resistivity)\_\_* = \_\_\_\_\_\_\_\_\_\_; Constant \_*A (cross-sectional area)*\_\_ = \_\_\_\_\_\_\_\_\_\_**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Trial** | **Repetition** | **Length**  **(cm)** | **Resistance**  **(Ω)** |  | | **1** | **1** |  |  |  | | **2** | **1** |  |  |  | | **3** | **1** |  |  |  | | **4** | **1** |  |  |  | | **5** | **1** |  |  |  | |

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| **Part C: Effect of Cross-Sectional Area on Resistance** |
| **Table 3 – Effect of Cross-Sectional Area on Resistance**  **Constant *\_L (length)\_\_* = \_\_\_\_\_\_\_\_\_\_; Constant *\_ρ (resistivity)\_\_* = \_\_\_\_\_\_\_\_\_\_**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Trial** | **Repetition** | **Cross-sectional Area**  **(cm2)** | **Resistance**  **(Ω)** |  | | **1** | **1** |  |  |  | | **2** | **1** |  |  |  | | **3** | **1** |  |  |  | | **4** | **1** |  |  |  | | **5** | **1** |  |  |  | |