|  |  |  |
| --- | --- | --- |
| 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)*\_\_ = \_\_\_\_\_\_\_\_\_\_**

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| --- | --- | --- | --- | --- |
| **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)\_\_* = \_\_\_\_\_\_\_\_\_\_**

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| --- | --- | --- | --- | --- |
| **Trial** | **Repetition** | **Cross-sectional Area****(cm2)**  | **Resistance****(Ω)** |  |
| **1** | **1** |  |  |  |
| **2** | **1** |  |  |  |
| **3** | **1** |  |  |  |
| **4** | **1** |  |  |  |
| **5** | **1** |  |  |  |

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