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| |  |  |  | | --- | --- | --- | | **Worksheet for Lab on Capacitors in Series** | **Name** |  | | **and Parallel** |  |  | |  | **Date** |  | |
|  |
| |  |  |  | | --- | --- | --- | |  | **Partner #1** |  | |  |  |  | |  | **Partner #2** |  | |
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| **Experiment #1 – Solo Capacitors:** |
|  |
| **Complete and fill in Data Table 01** |
|  |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | **Capacitor** | **A** | **B** | **C** | | **Trial 1** | **Time For V~8 V**  **(s)** |  |  |  | |  | **Time For V~3 V**  **(s)** |  |  |  | |  | **Discharge Time**  **(s)** |  |  |  | |  |  |  |  |  | | **Trial 2** | **Time For V~8 V**  **(s)** |  |  |  | |  | **Time For V~3 V**  **(s)** |  |  |  | |  | **Discharge Time**  **(s)** |  |  |  | |  |  |  |  |  | | **Trial 3** | **Time For V~8 V**  **(s)** |  |  |  | |  | **Time For V~3 V**  **(s)** |  |  |  | |  | **Discharge Time**  **(s)** |  |  |  | |  |  |  |  |  | | **Average** | **Discharge Time**  **(s)** |  |  |  | |  |  |  |  |  | |
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| **Experiment #2 – Capacitors in Parallel:** |
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| **Complete and fill in Data Table 02** |
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| |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | **Capacitors** | **A & B** | **B & C** | **A & B & C** | | **Trial 1** | **Time For V~8 V**  **(s)** |  |  |  | |  | **Time For V~3 V**  **(s)** |  |  |  | |  | **Discharge Time**  **(s)** |  |  |  | |  |  |  |  |  | | **Trial 2** | **Time For V~8 V**  **(s)** |  |  |  | |  | **Time For V~3 V**  **(s)** |  |  |  | |  | **Discharge Time**  **(s)** |  |  |  | |  |  |  |  |  | | **Trial 3** | **Time For V~8 V**  **(s)** |  |  |  | |  | **Time For V~3 V**  **(s)** |  |  |  | |  | **Discharge Time**  **(s)** |  |  |  | |  |  |  |  |  | | **Average** | **Discharge Time**  **(s)** |  |  |  | |  | **Using Values from Table 01** |  |  |  | |  |  |  |  |  | |  | **% Difference** |  |  |  | |
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| **Experiment #3 – Capacitors in Series:** |
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| **Complete and fill in Data Table 03** |
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| |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | **Capacitors** | **A & B** | **B & C** | **A & B & C** | | **Trial 1** | **Time For V~8 V**  **(s)** |  |  |  | |  | **Time For V~3 V**  **(s)** |  |  |  | |  | **Discharge Time**  **(s)** |  |  |  | |  |  |  |  |  | | **Trial 2** | **Time For V~8 V**  **(s)** |  |  |  | |  | **Time For V~3 V**  **(s)** |  |  |  | |  | **Discharge Time**  **(s)** |  |  |  | |  |  |  |  |  | | **Trial 3** | **Time For V~8 V**  **(s)** |  |  |  | |  | **Time For V~3 V**  **(s)** |  |  |  | |  | **Discharge Time**  **(s)** |  |  |  | |  |  |  |  |  | | **Average** | **Discharge Time**  **(s)** |  |  |  | |  | **Using Values from Table 01** |  |  |  | |  |  |  |  |  | |  | **% Difference** |  |  |  | |
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