Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date \_\_\_/\_\_\_/\_\_\_

**Student Activity – Electrical Power**

**Directions for Compute Power from the Power Formula**

Study the following schematics and answer the questions below them. Use the formulas for power:

* P=VI when current and voltage are known;
* P=I2R when current and resistance are known; and
* P=V2 /R when voltage and resistance are known.



**A**.

I = 25 mA

R = 150 Ω

1. State the power formula(s) needed to solve for power.
2. Solve for P.

|  |  |  |  |
| --- | --- | --- | --- |
| **B**. |  |  |  |
|  |  |  |  |
|  |  | R = 100 Ω |  |  |
|  |  |  | R = 250 Ω |  |
| V = 16 V |  |  |  |
|  |  |  |
|  |  |  |  |
|  |  |  |  |  |



1. State the power formula(s) needed to solve for power.
2. Solve for P.



|  |  |  |  |
| --- | --- | --- | --- |
| **C.** | I = 60 mA |  |  |
|  |  |  |

I = 20 mA

R = 40 Ω

1. State the power formula(s) needed to solve for power.
2. Solve for P.