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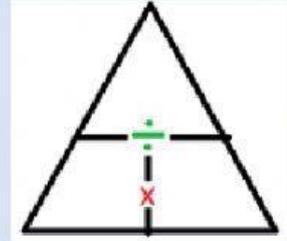
### VOLTAGE, CURRENT AND RESISTANCE CALCULATIONS

Voltage in a circuit can be calculated using the equation:

$$\text{VOLTAGE} = \text{CURRENT} \times \text{RESISTANCE}$$

The unit of measurement for Voltage is the Volt (V), for Current, it is Amperes (Amp) and for Resistance it is Ohms ( $\Omega$ ).

Complete the triangle to the right using V, I and R.  
(The first line for each answer is for the correct EQUATION).



1a. Calculate the voltage in a circuit where the current is 2A and the resistance is 10 Ohms.

$$\begin{aligned} \text{Voltage} &= \text{_____} \times \text{_____} \\ &= \text{_____ Amps} \times \text{_____ } \Omega \\ &= \text{_____ V} \end{aligned}$$

b. . Calculate the voltage in a circuit where the current is 50A and the resistance is 2 Ohms.

$$\begin{aligned} \text{Voltage} &= \text{_____} \times \text{_____} \\ &= \text{_____ Amps} \times \text{_____ } \Omega \\ &= \text{_____ V} \end{aligned}$$

c. Calculate the voltage in a circuit where the current is 64A and the resistance is 80 Ohms.

$$\begin{aligned} \text{Voltage} &= \text{_____} \times \text{_____} \\ &= \text{_____ Amps} \times \text{_____ } \Omega \\ &= \text{_____ V} \end{aligned}$$

2a. Calculate the current in a circuit where the voltage is 10 V and resistance is 2 Ohms.

$$\begin{aligned} \text{Current} &= \text{_____} / \text{_____} \\ &= \text{_____ V} / \text{_____ } \Omega \\ &= \text{_____ Amps} \end{aligned}$$

b. Calculate the current in a circuit where the voltage is 1320 V and resistance is 11 Ohms.

$$\begin{aligned} \text{Current} &= \text{_____} / \text{_____} \\ &= \text{_____ V} / \text{_____ } \Omega \\ &= \text{_____ Amps} \end{aligned}$$

c. Calculate the current in a circuit where the voltage is 75 V and resistance is 150 Ohms.

$$\begin{aligned}\text{Current} &= \underline{\hspace{2cm}} / \underline{\hspace{2cm}} \\ &= \underline{\hspace{2cm}} \text{ V} / \underline{\hspace{2cm}} \Omega \\ &= \underline{\hspace{2cm}} \text{ Amps}\end{aligned}$$

3a. Calculate the resistance in a circuit where the voltage is 230 V and current is 10 Amps

$$\begin{aligned}\text{Resistance} &= \underline{\hspace{2cm}} / \underline{\hspace{2cm}} \\ &= \underline{\hspace{2cm}} \text{ V} / \underline{\hspace{2cm}} \text{ A} \\ &= \underline{\hspace{2cm}} \Omega\end{aligned}$$

b. Calculate the resistance in a circuit where the voltage is 12 V and current is 1.5 Amps

$$\begin{aligned}\text{Resistance} &= \underline{\hspace{2cm}} / \underline{\hspace{2cm}} \\ &= \underline{\hspace{2cm}} \text{ V} / \underline{\hspace{2cm}} \text{ A} \\ &= \underline{\hspace{2cm}} \Omega\end{aligned}$$

c. Calculate the resistance in a circuit where the voltage is 56 V and current is 8 Amps

$$\begin{aligned}\text{Resistance} &= \underline{\hspace{2cm}} / \underline{\hspace{2cm}} \\ &= \underline{\hspace{2cm}} \text{ V} / \underline{\hspace{2cm}} \text{ A} \\ &= \underline{\hspace{2cm}} \Omega\end{aligned}$$