

This strategy helps students analyze the relationships among three variables, where one is a product of the other two.

## TRIANGLE OF POWER

## Summary

The Triangle of Power is a variation of the Ohm's Law Triangle, and it works in the same way visually. The triangle is divided into three sections, using a horizontal line to create a smaller triangle at the top. This smaller triangle represents power ( P ). A vertical line divides the bottom portion into halves, with one section representing current $(I)$ and the other representing voltage ( V ). See below for examples of other problems students can solve using the triangle.

## Procedure

1. To solve for one of the variables, cover that letter. Use the remaining variables-and take note of the type of line separating them-to help you write the equation. The variable you covered = the remaining variables either divided or multiplied by each other; for the purposes of the triangle, a horizontal line is a division symbol, while a vertical line is a multiplication symbol.
2. For example, (top variable) $=$ (bottom-left variable) $\cdot$ (bottom-right variable) OR (bottom-left variable) $=$ (top variable) $/$ (bottom-right variable) OR (bottom-right variable) $=$ (top variable) $/$ (bottom-left variable).
3. Elementary Fact Family Example: $24=6 \cdot 4$. The product, 24, would be written at the top. The two factors, 4 and 6 , would be written in the bottom-left and bottom-right sections. If a student covered the 24 , the vertical line would indicate the multiplication of 4 and 6 . If a student covered the 4, the horizontal line would indicate the division of 24 by 6 .
4. Electricity Example: $\mathrm{V}=\mathrm{R} \cdot \mathrm{I}$. The product, V (voltage), would be written at the top. The other two variables, R (resistance) and I (current), would be written in the bottom-left and bottom-right sections. If a student wanted to solve for resistance, they would cover the $R$ and find the remaining variables to be $V$ and $I$ separated by a horizontal line. The horizontal line indicates division, so $\mathrm{R}=\mathrm{V} /$ I. If a student wanted to solve for voltage, they would cover the $V$ and find the remaining variables to be $R$ and $I$ separated by a vertical line. The vertical line indicates multiplication, so $\mathrm{R} \cdot \mathrm{I}=\mathrm{V}$.
