SolarProfessor.info

Solar Professor℠

NABCEP – What you need to know

- Ohms Law / Watts Law

Solar Professor

Ohms Law / Watts Law

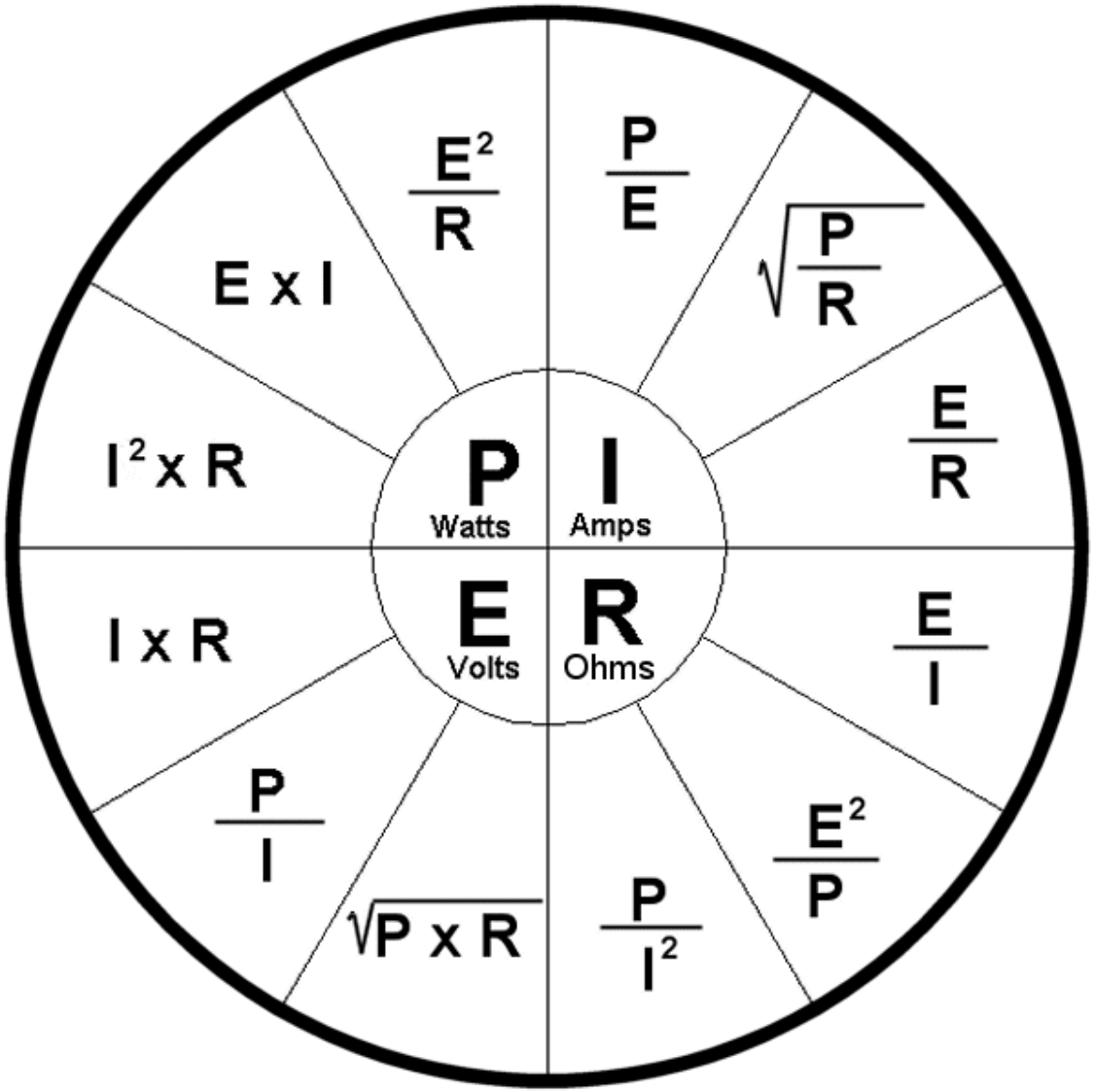
Learning Objectives

- An understanding of Ohms Law and Watts Law
- How to use it with sample NABCEP Problems

Solar Professor℠

Ohms Law / Watts Law

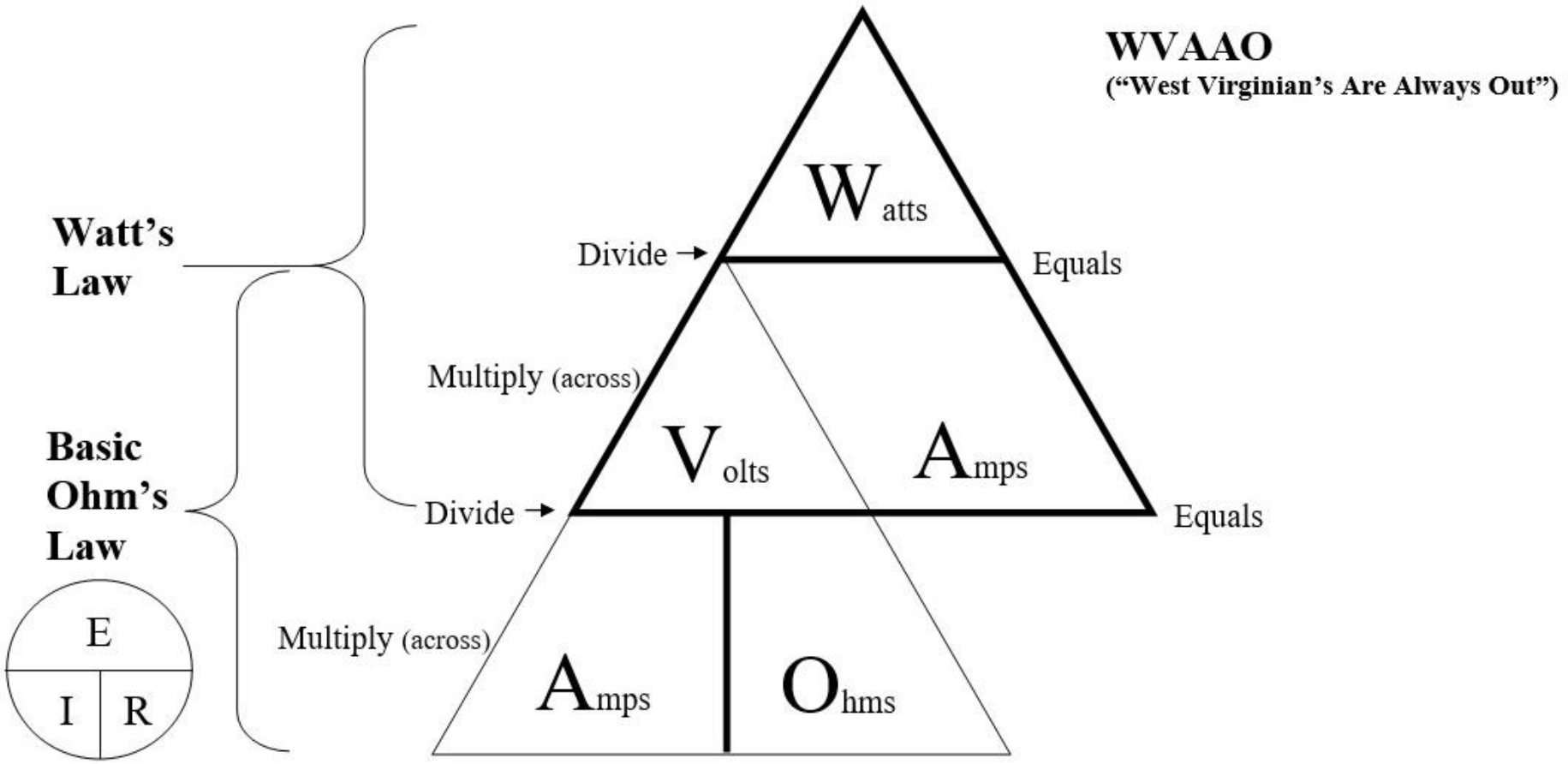
Traditional Ohms Law Wheel



Solar Professor℠

Ohms Law / Watts Law

The Power Pyramid – A different Approach



W=Watts (P=Power, Volt Amp)	A=Ampere (I=Intensity, Current)
V=Volts (E=Electromotive Force)	Ω=Ohms (R=Resistance)

SAMPLE NABCEP TYPE QUESTION

Q: A light bulb uses 120 volts and .5 amps. If there are 3 light bulbs on the circuit, what is the power consumption?

A: This is a simple Watts Law problem. V x A = W: 120V x .5A = 60W x 3 bulbs = 180W

Solar Professor

Ohms Law / Watts Law

SAMPLE NABCEP TYPE QUESTION

Q: What is the resistance in an inverter circuit that is 240V. The inverter is rated to produce 6000W.

A: Using the Power Pyramid, this is a simple 2 part Ohms Law equation. W / V = A, V / A = R: 6000W / 240V = 25A, 240V / 25A = 9.6R

Solar Professor℠

Thank You

SolarProfessor.info