

**DC Circuits:**  $V = IR$       $P = IV$

**AC Circuits:**  $\%Accuracy = \frac{Actual\ Value - Specified\ Value}{Specified\ Value} \times 100\%$

For a sine wave:

$$V_{peak} = \sqrt{2} \ V_{rms}$$

$$V_{L-L} = \sqrt{3} \times V_{L-N}$$

$$V = IZ$$

$$X_L = 2\pi fL$$

$$X_C = \frac{1}{2\pi fC}$$

$$Z = \sqrt{R^2 + (X_L - X_C)^2}$$

$$P = VI\cos\Theta = I^2R$$

$$\cos \Theta = \frac{R}{Z} = \text{Power Factor} = \frac{\text{watts}}{\text{volt amperes}} = \frac{\text{KW}}{\text{KVA}}$$