

Equations to memorize

Chapters 18 – 19

Current

$$I = \frac{\Delta q}{\Delta t}$$

Ohm's Law

$$\Delta V = IR$$

Kirchhoff's Current Law (Junction Rule)

$$\sum I_{in} = \sum I_{out}$$

Kirchhoff's Voltage Law (Loop Rule)

$$\sum \Delta V \text{ around a closed path} = 0$$

For devices in series:

$$\Delta V_{total} = \Delta V_1 + \Delta V_2 + \dots$$

For devices in parallel:

$$I_{total} = I_1 + I_2 + \dots$$