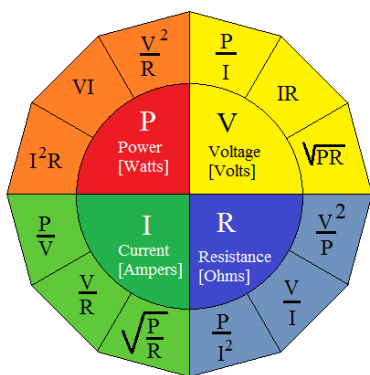# Electronics Equations

Tyler Hilbert

Electronic Formula Wheel

Equations from "Fundamentals of Electric Circuits"

Current: $I = dQ/dt$

(Note: This can also be written like this: $I = \Delta Q/\Delta t$)

Charge: $Q = \int_{to}^{t} i\, dt$

Voltage: $V = dw/dQ$

Power: $p = dw/dt$

Kirchoff's Law: $\sum_{m=1}^{M} v_m = 0$

Resistance in series: $\sum_{n=1}^{N} R_n$

Resistance in parallel: $R = 1/\sum_{n=1}^{N} 1/R_n$