

Rules for combining resistors and Ohms Law

V = Voltage but in an almost infinite number of texts E = Voltage

I = Current

R = Resistance

Combining resistors two ways:

$$R_{\text{sum_in_series}} = R1 + R2 + R3$$

$$R_{\text{total_in_parallel}} = 1 / (1/R1 + 1/R2 + 1/R3)$$

Ohms Law:

These three equations are identical to the next three:

$$I = V / R$$

$$V = I * R$$

$$R = V / I$$

OR

$$I = E / R$$

$$E = I * R$$

$$R = V / I$$