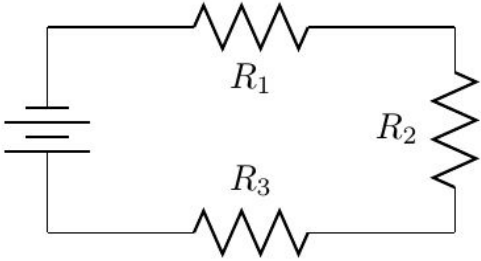
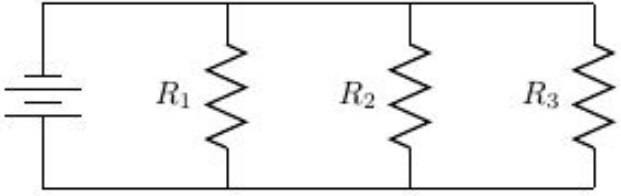
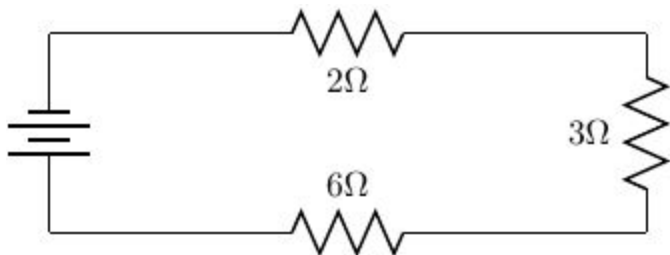


Resistance in Series and Parallel Circuits

Resistance in Series Circuit	Resistance in Parallel Circuit
 $R_T = R_1 + R_2 + R_3$	 $\frac{1}{R_T} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}$

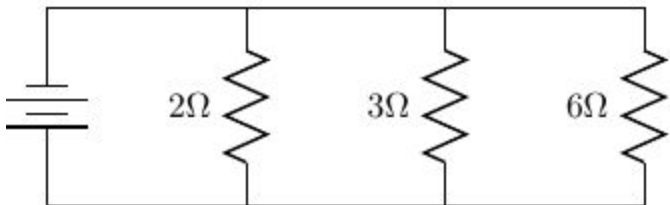
Calculate the total resistance in each circuit:



$$R_T = R_1 + R_2 + R_3$$

$$R_T = 2\Omega + 3\Omega + 6\Omega$$

$$R_T = 11\Omega$$



$$\frac{1}{R_T} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}$$

$$\frac{1}{R_T} = \frac{1}{2\Omega} + \frac{1}{3\Omega} + \frac{1}{6\Omega}$$

$$\frac{1}{R_T} = \frac{3 \times 1}{3 \times 2\Omega} + \frac{2 \times 1}{2 \times 3\Omega} + \frac{1}{6\Omega}$$

$$\frac{1}{R_T} = \frac{3}{6\Omega} + \frac{2}{6\Omega} + \frac{1}{6\Omega} = \frac{6}{6\Omega} = \frac{1}{1\Omega}$$

$$R_T = 1\Omega$$