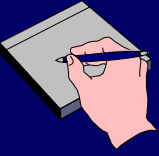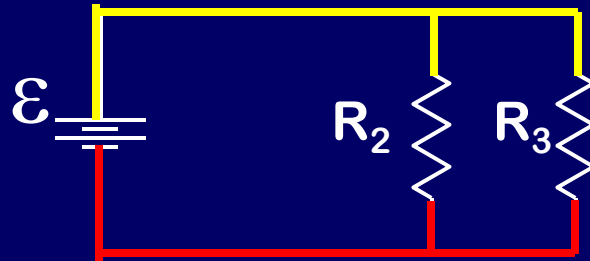# Practice: Resistors in Parallel

Determine the current through the battery.

Let ε = 60 Volts, R_2 = 20 Ω and R_3=30 Ω.

Simplify: R_2 and R_3 are in parallel

$$1/R_{23} = 1/R_2 + 1/R_3 \quad R_{23} = 12 \ \Omega$$

$$V_{23} = V_2 = V_3 \quad = 60 \text{ Volts}$$

$$I_{23} = I_2 + I_3 \quad = V_{23}/R_{23} = 5 \text{ Amps}$$