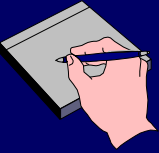
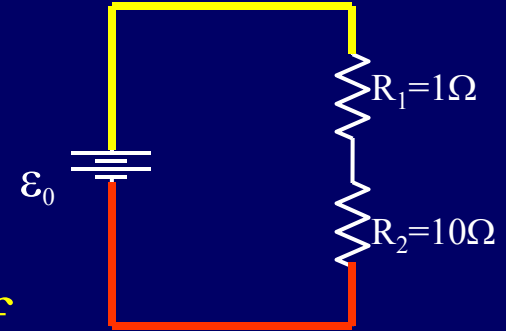


Example



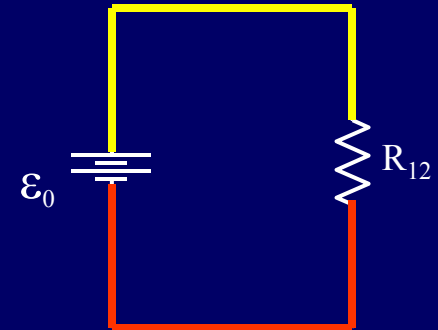
Practice: Resistors in Series

Calculate the voltage across each resistor if the battery has potential $\varepsilon_0 = 22$ volts.



Simplify (R_1 and R_2 in series):

- $R_{12} = R_1 + R_2 = 11 \Omega$
- $V_{12} = V_1 + V_2 = \varepsilon_0 = 22$ Volts
- $I_{12} = I_1 = I_2 = V_{12}/R_{12} = 2$ Amps



Expand:

- $V_1 = I_1 R_1 = 2 \times 1 = 2$ Volts
- $V_2 = I_2 R_2 = 2 \times 10 = 20$ Volts

Check: $V_1 + V_2 = V_{12}$?

