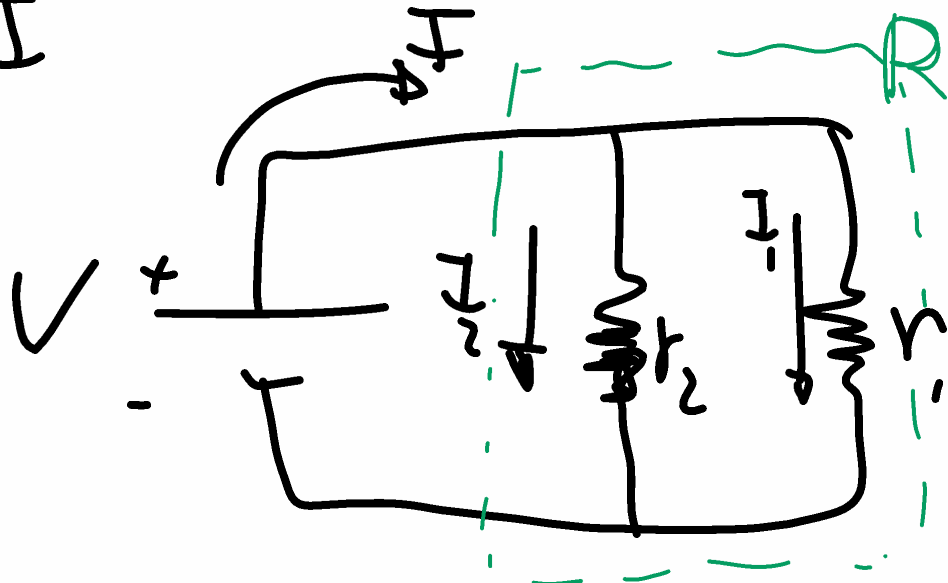


OHM'S LAW:

Resistors in parallel

FRI 3 MAY 2019

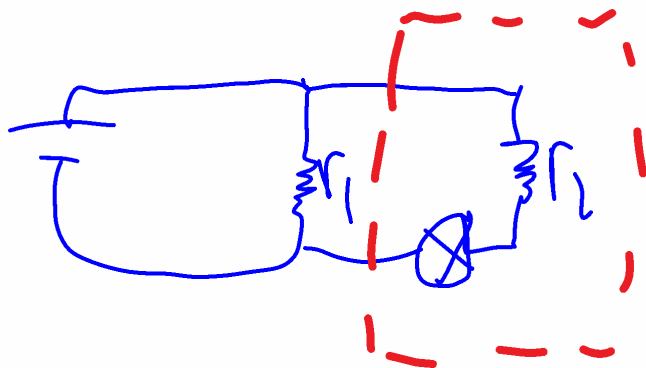
$$V = RI$$



$$I = I_1 + I_2$$

$$\frac{V}{R} = \frac{V}{r_1} + \frac{V}{r_2} \Rightarrow$$

$$\frac{1}{R} = \frac{1}{r_1} + \frac{1}{r_2}$$



r_2 is in parallel w/ r_1

r_2 is NOT in parallel w/ r_1

Example Say $r_1 = 10 \Omega$
 $r_2 = 100 \Omega$

$$\frac{1}{R} = \frac{1}{10} + \frac{1}{100} = \frac{11}{100} \quad \therefore$$

$$R = \frac{100}{11} < r_1$$