AP - Chapter 20 Review

Voltage	Current	Resistance	Power
energy/ charge	charge/sec	resists current	energy/ time
pushes current	flow of current	decreases current	$, flow rate
V	I	R	P
V = IR	I = q/t	$R = \rho L/A$ $R = R_o(1 + \alpha(T-T_o))$	$P = IV$ $P = I^2R$ $P = V^2/R$

"light"

Parallel	Series
mulitple paths	ONE path
$1/R_t = \Sigma 1/R_i$ ($R\downarrow$)	$R_t = \Sigma R_i$ ($R\uparrow$)
$I_t = \Sigma I_i$	$I_t = I_i$
$V_t = V_i$	$V_t = \Sigma V_i$
$C_t = \Sigma C_i$ ($C\uparrow$)	$1/C_t = \Sigma 1/C_i$ ($C\downarrow$)

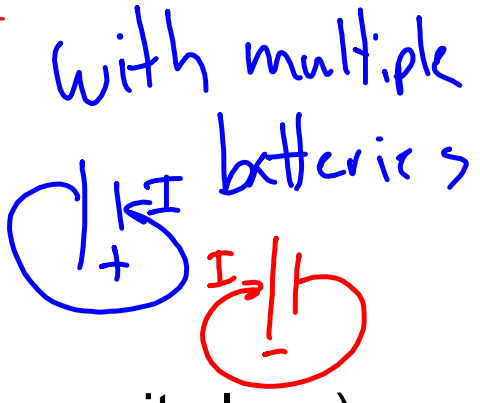
Kirchoff

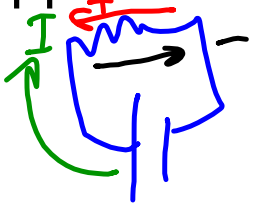
$\Sigma V = 0$

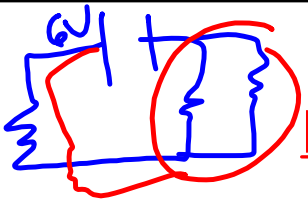
battery + ⟶ - = +

battery - ⟶ + = -

resistor = - (unless I opposite loop)



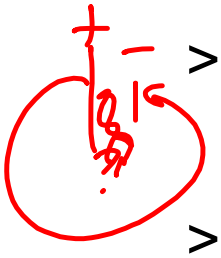




Equivalent Resistance

***do what you know FOR SURE first

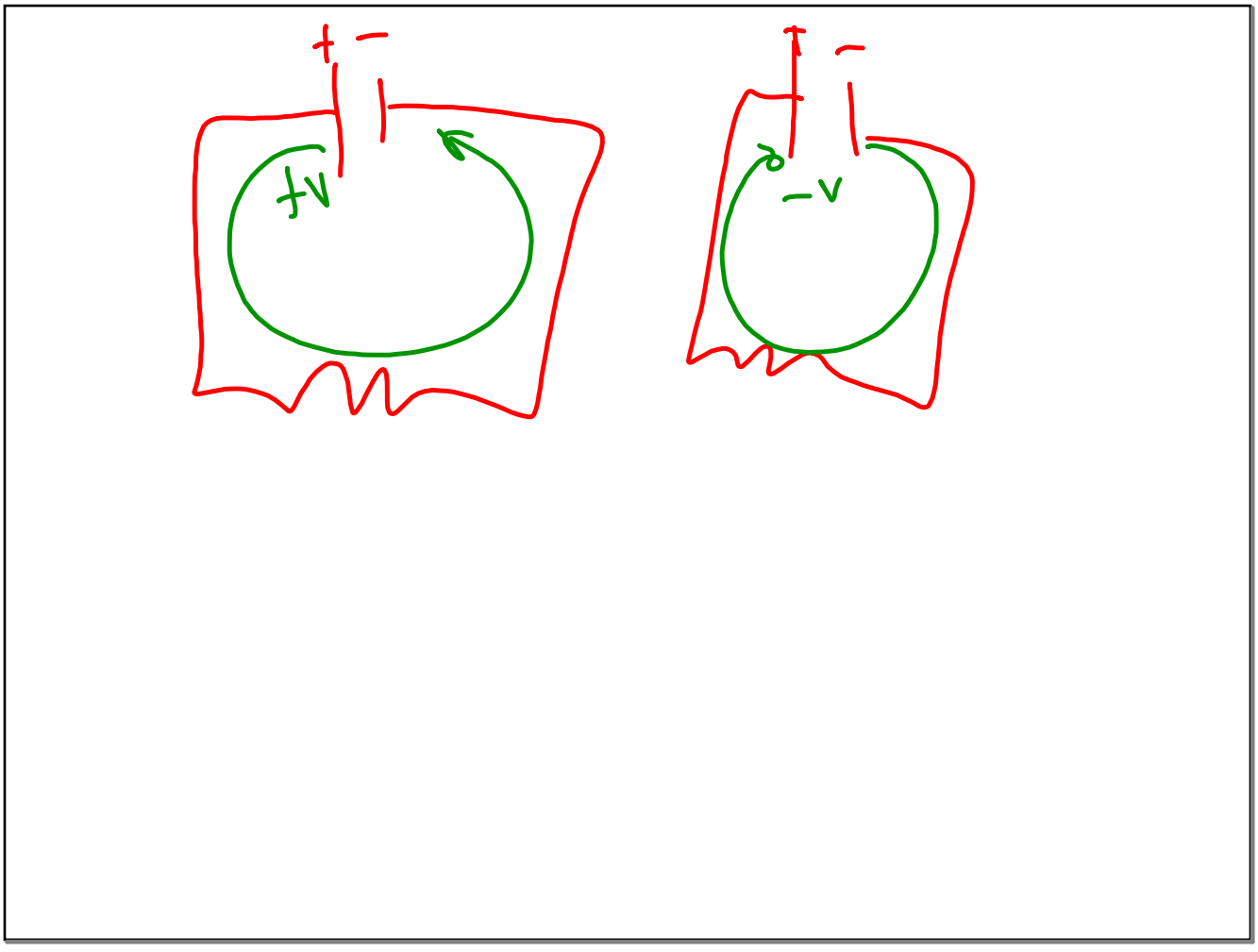
*** pay attentions to



> I(Total) vs I (through specific resistor or path

> V(Total) vs V (Across ONE branch)

> R (Total) vs R (of one part, one resistor)


+
−
+V
+
−
−V