

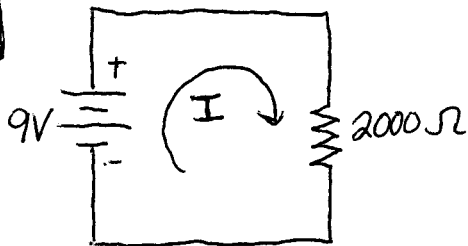
1

$$V = IR$$

$$V = q/c$$

$$V = L \frac{dI}{dt}$$

2

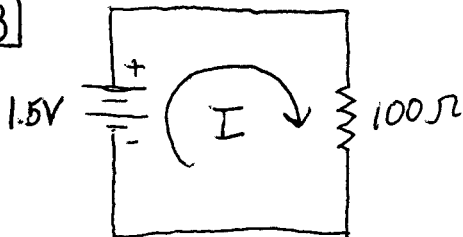


$$I = V/R$$

$$= 9/2000 = .0045 A$$

$$\frac{2 Ah}{.0045 A} = 444.44 h$$

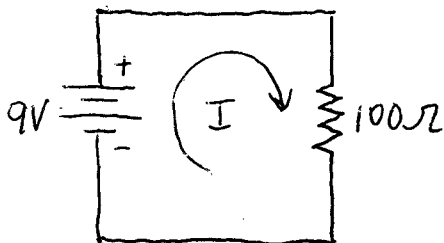
3



$$I = V/R = \frac{1.5}{100} = .015 A$$

$$life = IT = .015 (1200) = 18 Ah$$

4

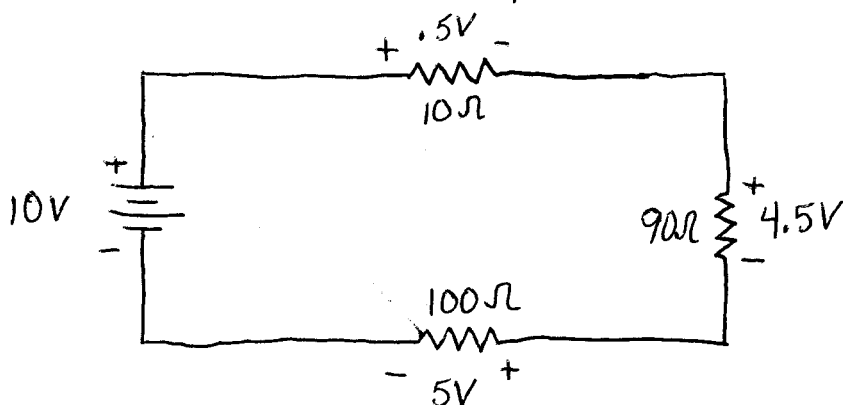


$$I = V/R = \frac{9V}{100\Omega} = .09 A$$

$$life = IT = .09 (6) = .54 Ah$$

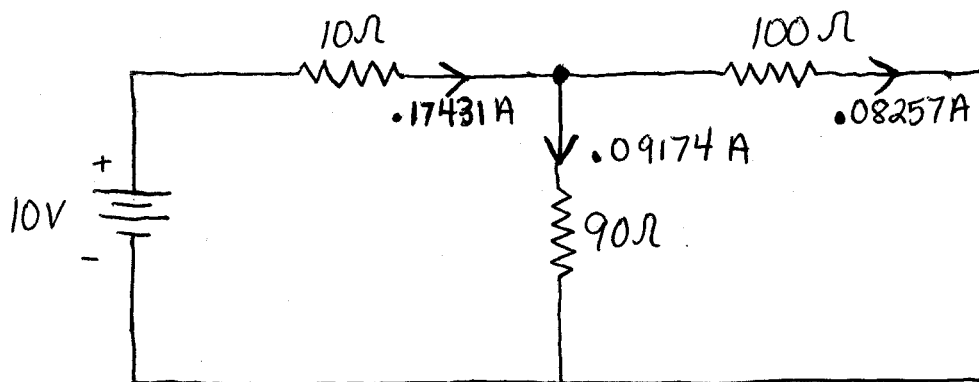
5 Kirchhoff's Voltage Law:

The sum of the voltage changes about a circuit loop is zero.

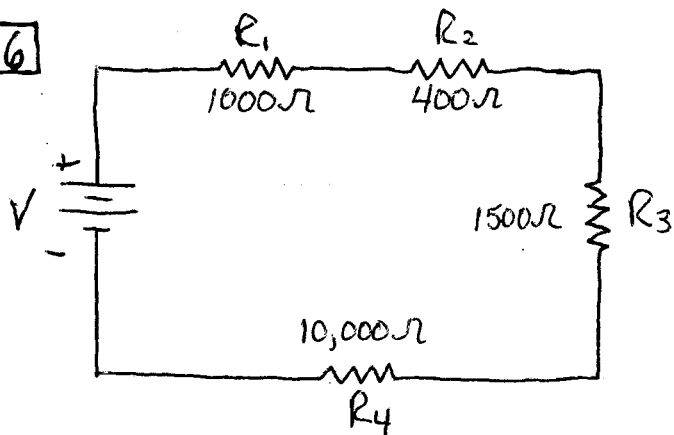


Kirchhoff's Current Law:

The sum of the currents flowing into a node must be equal to the sum of the currents flowing from that node.

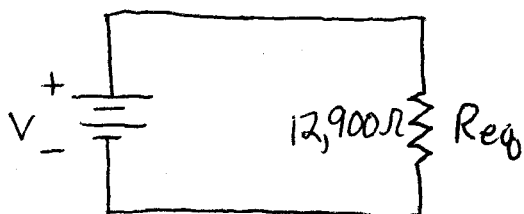


6

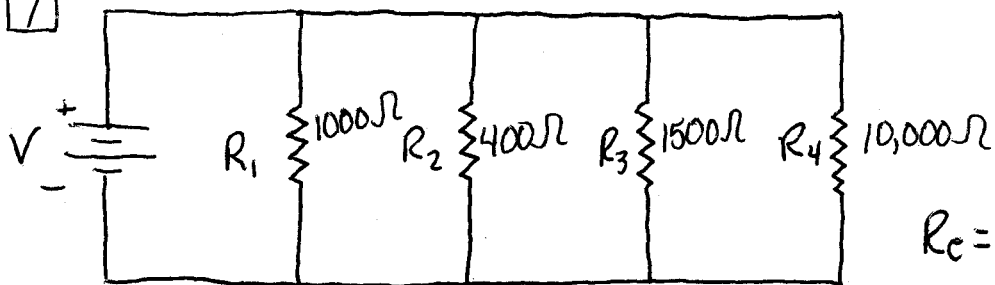


$$R_{eq} = R_1 + R_2 + R_3 + R_4$$

$$= 12900\Omega$$



7



$$R_e = \frac{1}{\frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} + \frac{1}{R_4}}$$

$$= 234.38$$

