

Quiz 7

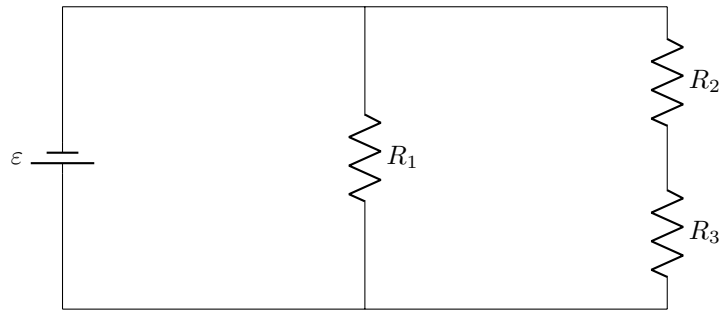
The following information may or may not be of use:

$$\text{Ohm's Law: } I = \frac{\Delta V}{R}$$

$$\text{Electrical Resistance: } R = \frac{L}{\sigma A}$$

$$\text{Power: } P = I\Delta V$$

In the following diagram: $R_1 = 100 \, \Omega$, $R_2 = 100 \, \Omega$, and $R_3 = 220 \, \Omega$. The battery emf $\varepsilon = 3.0 \, \text{V}$.



1. Find the currents I_1, I_2, I_3 through each resistor
2. What is the power output of the battery?