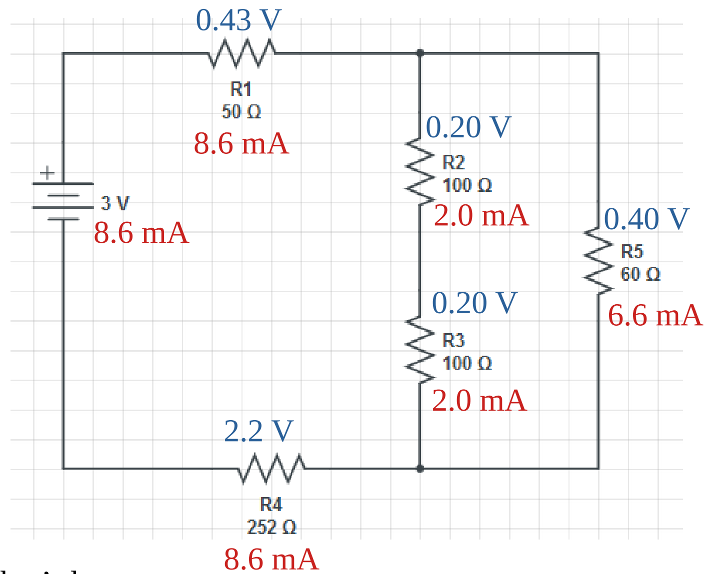

Step 1: Calculate the equivalent resistance R_{eq} by decomposing circuit into parallel and series components.

$$R_{eq} = 50\Omega + \frac{1}{\frac{1}{200\Omega + 200\Omega} + \frac{1}{60\Omega}} + 252\Omega \approx 348\Omega$$

Step 2: calculate current through battery:

$$I_{\text{bat}} = \frac{\mathcal{E}}{R_{eq}} = \frac{3.0\ \text{V}}{348} \approx 8.6\ \text{mA}$$

Step 3: The current through R1 and R4 is the same as I_{bat}.

Step 4: The voltages through R1 and R4 are given by Ohm's law

$$V_1 = (8.6\ \text{mA})(50\Omega) \approx 0.43\ \text{V}$$

$$V_4 = (8.6\ \text{mA})(252\Omega) \approx 2.17\ \text{V}$$

Step 5: By the loop rule, the voltage V_1 through R5 is equal to

$$V_1 = \mathcal{E} - V_1 - V_4 \approx 0.40\text{V}$$

and the voltages through R2 and R3 are each equal to half of this

$$V_2 = V_3 = 0.20\text{V}$$

Step 6: We can calculate the current through the R5 branch using Ohm's law

$$I_5 = \frac{V_5}{R_5} = \frac{0.40}{60} \approx 6.6\ \text{mA}$$

The current through the other parallel branch is the total current I_\text{bat} minus the current through R5.

$$I_2 = I_3 = I_{\text{bat}} - I_5 \approx 2.0\ \text{mA}$$