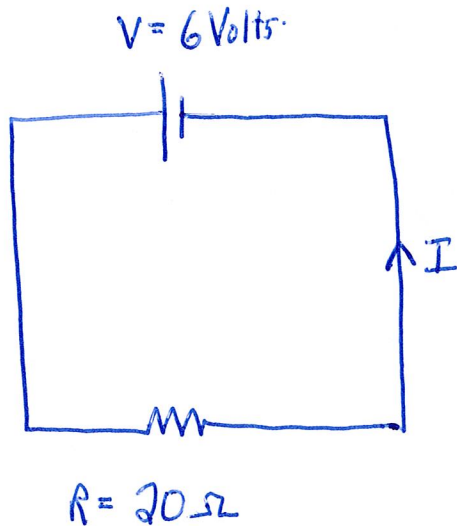


Physics 11 Circuit Analysis – Worksheet #1



Name: _____

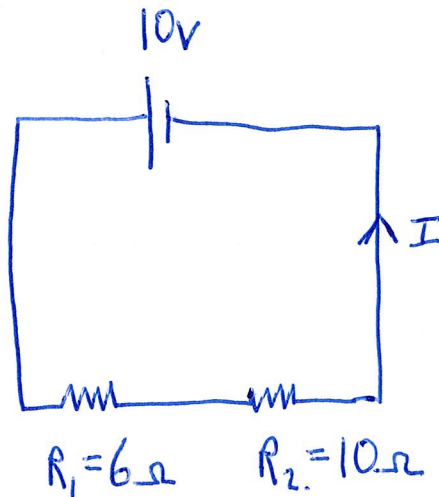
1. Find the required missing values. Show your working in clearly defined steps.



$$I = \underline{0.3 \text{ A}}$$

$$I = \frac{V}{R} = \frac{6}{20} = 0.3 \text{ A}$$

2. Find the required missing values. Show your working in clearly defined steps.

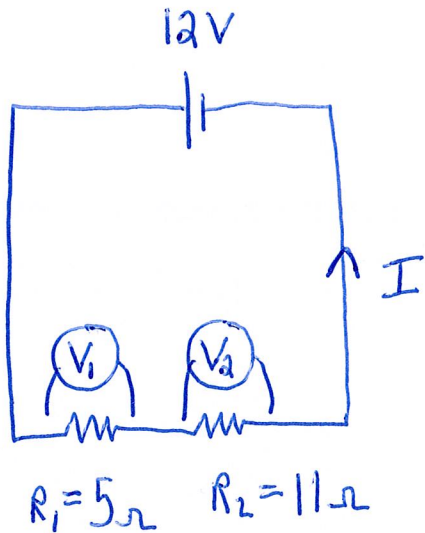


$$R_{\text{TOT}} = \underline{16 \Omega}$$

$$I = \underline{0.625 \text{ A}}$$

$$I = \frac{V}{R} = \frac{10}{16} = 0.625 \text{ A}$$

3. Find the required missing values. Show your working in clearly defined steps.



$$R_{TOT} = \underline{16\Omega}$$

$$I_{TOT} = \underline{0.75A} \quad V_1 = \underline{3.75V}$$

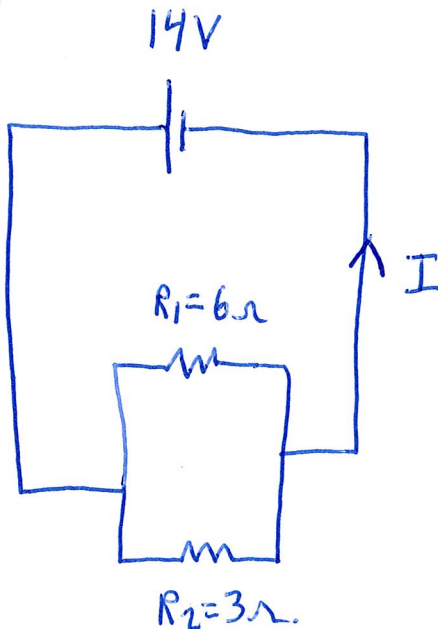
$$V_2 = \underline{8.25V}$$

① $I = \frac{V}{R} = \frac{12}{16} = 0.75A$

② $V_1 = IR_1 = (0.75)(5) = 3.75V$

③ $V_2 = IR_2 = (0.75)(11) = 8.25V$

4. Find the required missing values. Show your working in clearly defined (boxed steps).



$$I = \underline{7A}$$

① $\frac{1}{R_T} = \frac{1}{6} + \frac{1}{3} \rightarrow R_T = 2\Omega$

② $I = \frac{V}{R} = \frac{14}{2} = 7A$