

2-13-2012

①

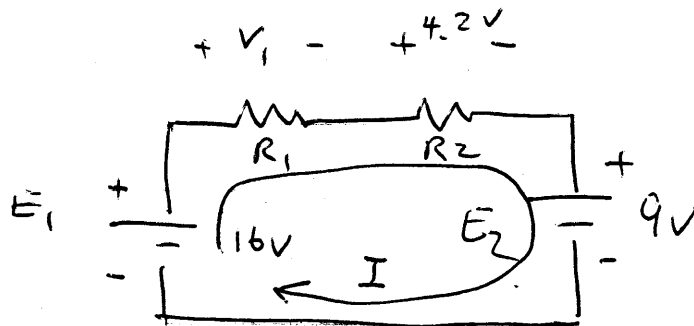
Exam 4.

Score	#
100	6
90s	5
80s	4
70s	<u>x</u>
60s	<u>2</u>

Average

* 80 ~ 90

Trace Circuit



Left $\rightarrow$ Right

Top $\rightarrow$ Down

Current Flowing direction

$$\sum V = 0$$

Ground
0V

$$\sum V_{\text{rises}} = \sum V_{\text{drops}}$$

$$E_1 + E_2 = V_1 + V_2$$

$$* \quad 16V - 9V = V_1 + 4.2$$

Adding

$$\begin{matrix} E_1 & \frac{1}{1}^+ 16 \\ E_2 & \frac{1}{1}^+ 9 \end{matrix} \Rightarrow \frac{1}{1} 25V$$

$$\begin{matrix} 16V \\ 9V \end{matrix} \Rightarrow \frac{9}{1} 7V$$

$$\begin{matrix} 9V E_2 \\ 16V E_1 \end{matrix} \Rightarrow \frac{9}{1}^+ 7V$$

(2)

$$7$$

$$16V - 9V = V_1 + 4.2V$$

~~$$V_1 = 4.2V$$~~

$$7 = V_1 + 4.2$$

$$7 - 7 = V_1 + 4.2 - 7$$

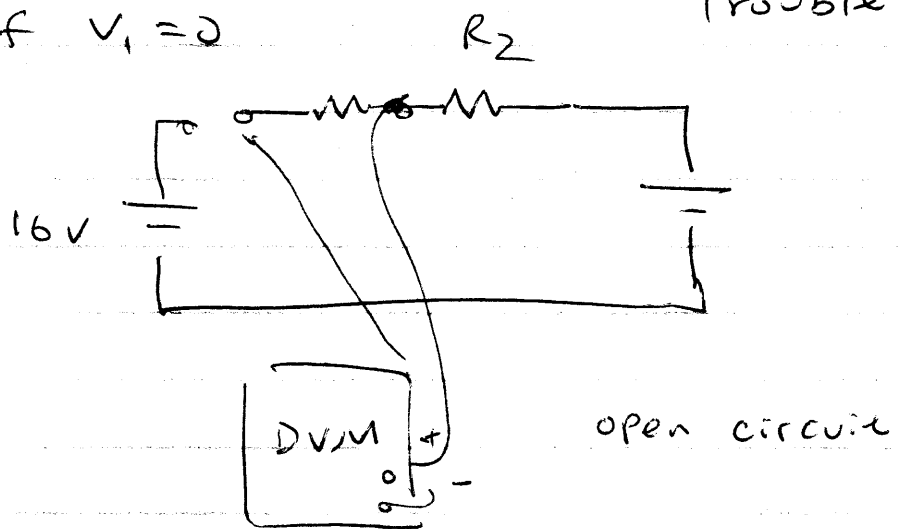
$$0 = V_1 - 2.8$$

$$-V_1 = -2.8 \checkmark$$

$$V_1 = 2.8V$$

If $V_1 = 0$

* Trouble Shooting



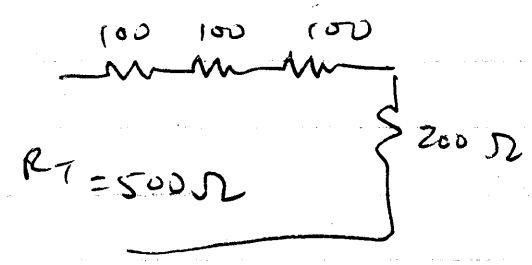
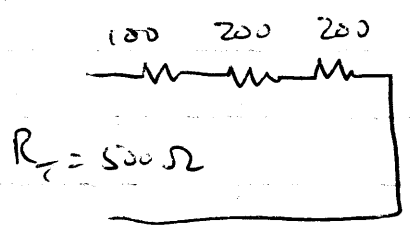
* EXAMPLE

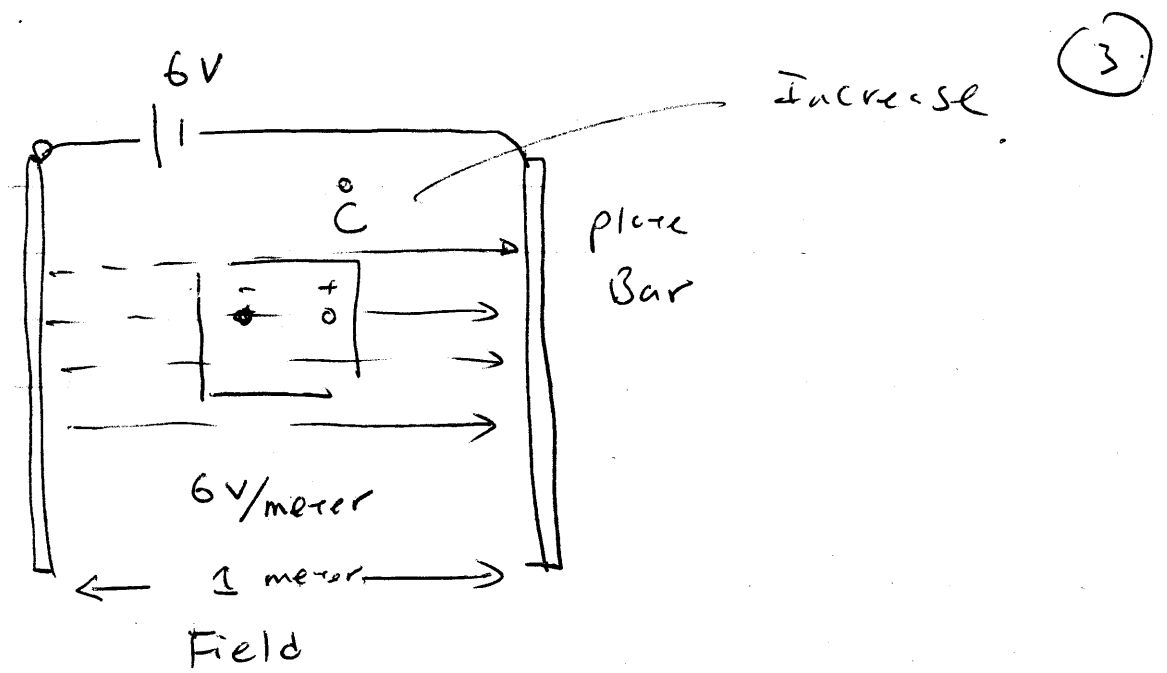
1) 100Ω Resistor only

Need 200Ω Resistor for the ckt $\Rightarrow \left. \begin{matrix} 100\Omega & 100\Omega \\ \hline \end{matrix} \right\} 200\Omega$

2) 100Ω , 200Ω #1

Need 500Ω





Electric Field

Risk / Mitigation Plan

* Metal Detector