

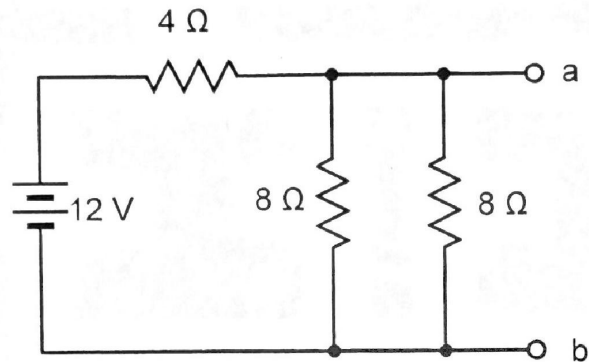
EE3 Fall 2015
Quiz 2

$\frac{10}{10}$

Name [REDACTED]
Family Name Given Name

UID [REDACTED]

Find the Thévenin Equivalent to this circuit, looking at it from terminals a and b.



$$\frac{V_{oc}}{R_{8,8}} = \frac{1}{8} + \frac{1}{8} = \frac{1}{4}$$

$$R_{eq} = 4 + 4 = 8 \Omega$$

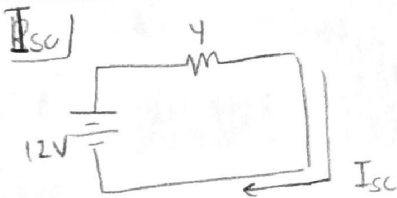
$$V = I R_{eq}$$

$$12 = I (8)$$

$$\frac{3}{2} = I$$

$$V_{oc} = I R_{8,8}$$

$$= \frac{3}{2} \cdot 4 = 6 \text{ Volts } \checkmark$$



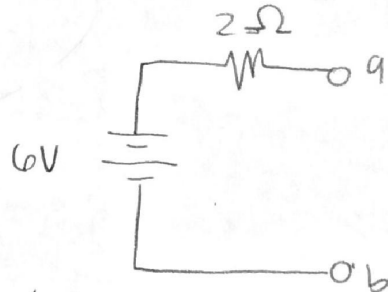
$$V = I_{sc} R$$

$$12 = I_{sc} (4)$$

$$I_{sc} = 3 \text{ A } \checkmark$$

$$R_{th} = \frac{V_{oc}}{I_{sc}} = 6 \left(\frac{1}{3} \right) = 2 \Omega \checkmark$$

$$V_{th} = V_{oc} = 6 \text{ Volts } \checkmark$$



Good!
Very neat and nicely laid out work.