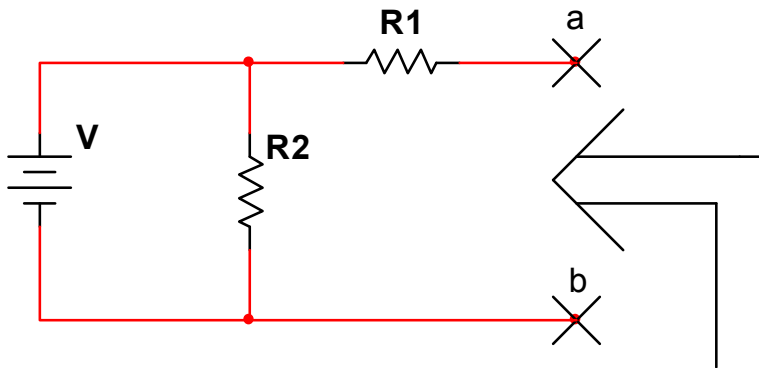


**FLORIDA INTERNATIONAL UNIVERSITY**  
**COLLEGE OF ENGINEERING AND COMPUTING**  
**DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING**

*EEL 3110L-CIRCUITS LAB*

**THIRD ACTIVITY:** Thévenin and Norton Equivalent Circuits. Do the computer simulations before or after the lab (it's recommended that you do them before).

**1-**For the given circuit and conditions, find the Thévenin and Norton equivalent circuit looking into **ab**.



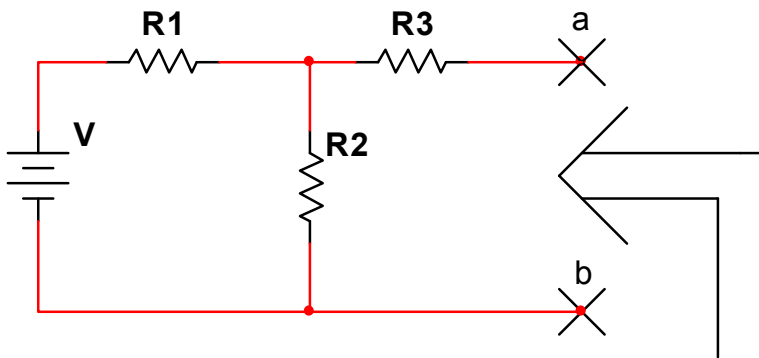
- a)  $R_1 \geq 1\text{k}\Omega$
- b)  $R_2 \geq 2.2\text{k}\Omega$
- c)  $2.4\text{ volts} \leq V \leq 10\text{ volts}$

Compute Thévenin and Norton equivalent circuit seen by **ab**.

Briefly explain and comment your results.

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2- For the given circuit and conditions, find the Thévenin and Norton equivalent circuit looking into **ab**.



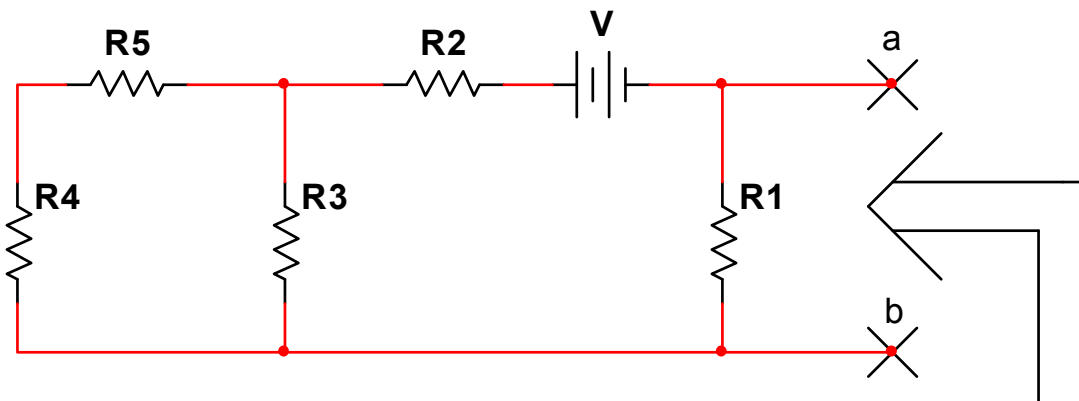
- a)  $R_1 \geq 1\text{k}\Omega$
- b)  $R_2 \geq 2.2\text{k}\Omega$
- c)  $R_3$  use your potentiometer at two different settings.
- d)  $2.4\text{ volts} \leq V \leq 10\text{ volts}$

Compute Thévenin and Norton equivalent circuit seen by **ab** for both cases.

Briefly explain and comment your results.

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3- For the given circuit and conditions, find the Thévenin and Norton equivalent circuit looking into **ab**.



- a)  $R_1 \geq 3.3\text{k}\Omega$
- b)  $R_2 \geq 5\text{k}\Omega$
- c)  $R_3 \geq 1\text{k}\Omega$
- d)  $R_4 = R_5 = 2.2\text{k}\Omega$
- e)  $2.4\text{ volts} \leq V \leq 10\text{ volts}$

Compute Thévenin and Norton equivalent circuit seen by **ab**.

Briefly explain and comment your results.

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Write a brief summary of today activities. Remember to keep your records and own comments in your lab notebook.