

# Lab #1 Verification of KVL and KCL Worksheet

Group member names/SN):

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Each group hands in a one filled in sheet from data obtained in the experiments of the Lab#1 directions.

DMM Accuracy		
Voltage	Current	Resistance
<input type="text"/>	<input type="text"/>	<input type="text"/>

Resistor Values			
	Nominal	Measured	
R1	<input type="text"/>	<input type="text"/>	$\pm$ <input type="text"/>
R2	<input type="text"/>	<input type="text"/>	$\pm$ <input type="text"/>
R3	<input type="text"/>	<input type="text"/>	$\pm$ <input type="text"/>

KVL			
	Expected	Measured	
$V_{in}$	<input type="text"/>	<input type="text"/>	$\pm$ <input type="text"/>
$V_{R1}$	<input type="text"/>	<input type="text"/>	$\pm$ <input type="text"/>
$V_{R2}$	<input type="text"/>	<input type="text"/>	$\pm$ <input type="text"/>

KCL		
	Expected	Measured
$I_{R1}$	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/> $\pm$ <input style="width: 50%; height: 20px;" type="text"/>
$I_{R2}$	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/> $\pm$ <input style="width: 50%; height: 20px;" type="text"/>
$I_{R3}$	<input style="width: 100%; height: 20px;" type="text"/>	<input style="width: 100%; height: 20px;" type="text"/> $\pm$ <input style="width: 50%; height: 20px;" type="text"/>

### Discussion:

Choose one example from your calculations and show how equipment accuracy and measurement errors propagate through the equations to affect expected values.

Explain how the measurement Process itself affects the resistances, voltages and currents that you are measuring. (One or Two Sentences and/or a diagram)