

Experiment 3

Voltage Dividers

And Thévenin's Theorem

In-Lab Report

Measure and record in the Table A.1 below, the bleeder current I_1 , the voltages V_B and V_A , and the load resistance R_L for each of the load conditions in the experiment 3 part A.

Measured Values					
V (V)	I_L (mA)	I_1 (mA)	V_B (V)	V_A (V)	R_L (Ω)
10	0	2.747	6.709	3.279	infin
10	2	2.07	5.06	2.474	2530
10	4	1.4	3.39	1.66	847.5
10	6	0.71	1.72	0.88	286.6

T ABLE A.1

After connecting the circuit of Fig. C.1, measure the open-circuit voltage between points A and B.

Open Circuit Voltage	5.53V
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With the 15 V source in Fig. C.1 replaced by a short-circuit, measure the resistance between the AB terminals with the digital multimeter.

Resistance AB	2363 ohm
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Matched-Load Method:

R_{TH}	2.41k
V_{TH}	5.53V