1 Objective

The objective is to measure the time constant of an RC circuit in order to verify the calculated values [1].

2 Equipment Used

- Digital Multimeter
- DC Power Supply
- Resistors: $1.2k\Omega$, $3.3k\Omega$, $10k\Omega$

3 Experiment Setup

4 Results

Table 9-1: Calculated Voltage and Current for Resistor R3 [1]

	Thevenin Equivalent	Norton Equivalent
I_{R3}	4.9 mA	4.9 mA
V_{R3}	16.17 V	16.17 V

Table 9-2: Measured Thevenin and Norton Equivalents [1]

Thevenin Equivalent		Norton Equivalent	
v_{TH}	21.43 V	i_N	18.3 mA
R_{TH}	$1.056k\Omega$	R_N	$1.056k\Omega$

Table 9-3: Measured Voltage and Current for Resistor R3 [1]

	Figure 9-3	Thevenin Equivalent	Norton Equivalent
I_{R3}	4.961 mA	4.961 mA	4.596 mA
V_{R3}	16.19 V	16.18 V	15 V

5 Conclusion

References

[1] UNCC ECE Department. Thevenin and norton equivalent circuits, 2023. [Online; accessed 17 November 2023].