



Universidad Tecnológica de Torreón

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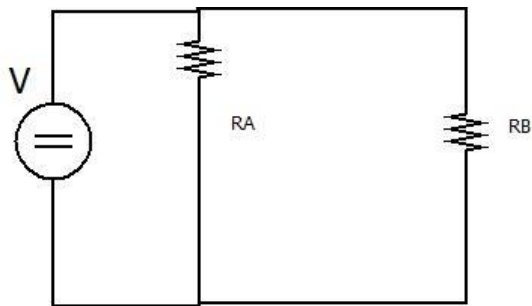
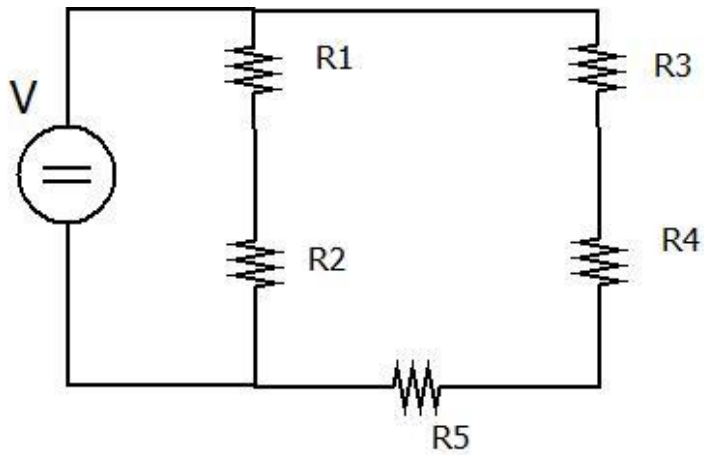
# PRINCIPIOS PARA IOT

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TDSM – 4”B”

Lucero Alhely Barraza Cedillo

**Circuito 1**



ID	R	I	V
1	10K	1.043	10.43
2	1.5K	1.043	1.564
3	5.2K	1.176	6.115
4	3.2K	1.176	3.763
5	1.8K	1.176	2.122
T	5.4083	2.2188	12 V

$$R_A = \frac{R_1 \cdot R_2}{R_1 + R_2} = \frac{10k \cdot 1.5k}{10k + 1.5k} = 11.5k$$

$$R_B = \frac{R_3 \cdot R_4 \cdot R_5}{R_3 + R_4 + R_5} = \frac{5.2k \cdot 3.2k \cdot 1.8k}{5.2k + 3.2k + 1.8k} = 10.2k$$

$$R_T = \frac{1}{\frac{1}{11.5} + \frac{1}{10.2}} = 5.4083$$

$$I_T = \frac{V_T}{R_T} = \frac{12}{5.4083} = 2.2188$$

$$I_A = \frac{12}{10.2} = 1.1764$$

$$I_B = \frac{12}{11.5} = 1.0434$$

$$V_1 = R_1 \cdot I_1 = 10.43$$

$$V_2 = 12 - 10.43 = 1.57$$

$$V_3 = R_3 \cdot I_3 = 6.115$$

$$V_4 = R_4 \cdot I_4 = 3.763$$

$$V_5 = 12 - 6.115 - 3.763 = 2.122$$