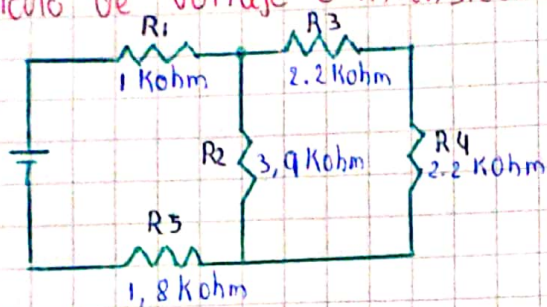


Cálculo de voltaje e intensidad



$$R_{e1} = 4,4 \text{ K}\Omega$$

$$\frac{1}{R_{e2}} = \frac{1}{4,4} + \frac{1}{3,9} \Rightarrow 2,067 \text{ K}\Omega$$

$$R_T = 1 \text{ Kohm} + 2,067 \text{ Kohm} + 1,8 \text{ Kohm} = 4,867 \text{ K}\Omega$$

$$V = i \cdot R_T \Rightarrow i = \frac{V}{R_T} \Rightarrow \frac{10}{4867} \Rightarrow 2,05 \text{ mA}$$

$$V_{Re2} = I \cdot R_{e2} \Rightarrow 2,05 \text{ mA} \cdot 2,067 \text{ K}\Omega = 4,24 \text{ V}$$

$$V_2 = 4,24 \text{ V}_{//}$$

$$V_1 = I \cdot R_1 \Rightarrow 2,05 \text{ mA} \cdot 1 \text{ Kohm} = 2,05 \text{ V}_{//}$$

$$V_3 = V_4 = \frac{V_2}{2} \text{ Ya que estan en serie}$$

$$V_5 = I \cdot R_5 \Rightarrow 2,05 \text{ mA} \cdot 1,8 \text{ Kohm} \Rightarrow 3,67 \text{ V}_{//}$$

$$V_3 = 2,12 \text{ V}_{//} \quad V_1 + V_2 + V_3 + V_4 + V_5 = 10 \text{ V}$$

$$i_1 = \frac{V_1}{R_1} = \frac{2,05 \text{ V}}{1 \text{ K}\Omega} = 2,05 \text{ mA}_{//}$$

$$V_4 = 2,12 \text{ V}_{//}$$

$$i_2 = \frac{V_2}{R_2} = \frac{4,24 \text{ V}}{3,9 \text{ K}\Omega} = 1,09 \text{ mA}_{//}$$

$$i_4 = \frac{V_4}{R_4} = \frac{2,12 \text{ V}}{2,2 \text{ K}\Omega} = 0,964 \text{ mA}_{//}$$

$$i_3 = \frac{V_3}{R_3} = \frac{2,12 \text{ V}}{2,2 \text{ K}\Omega} = 0,964 \text{ mA}_{//}$$

$$i_5 = \frac{V_5}{R_5} = \frac{3,67 \text{ V}}{1,8 \text{ K}\Omega} = 2,05 \text{ mA}_{//}$$

$$i_T = 2,05 \text{ mA}$$

Ley de Kirchhoff intensidades

misma intensidad

$$I_{R1} = I_{R2} + I_{R3}$$

$$I_{R2} + I_{R3} + I_{R4} = I_{R5}$$

$$I_{R1} = 1,09 \text{ mA} + 0,964 \text{ mA}$$

$$1,09 \text{ mA} + 0,964 \text{ mA} = I_{R5}$$

$$I_{R1} = 2,05 \text{ mA}_{//}$$

$$2,05 \text{ mA} = I_{R5}_{//}$$

$$\Sigma I = 0$$

$$I_{R1} - I_{R5} = 0$$

$$2,05 - 2,05 = 0$$

$$0 = 0_{//}$$