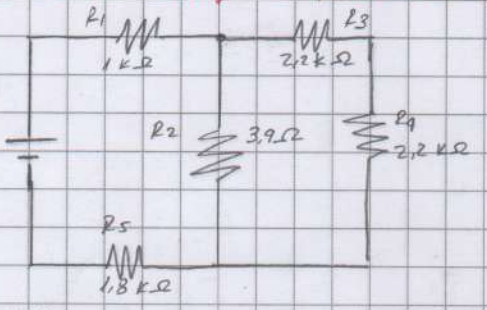
1er Cuadro Voltaje e Intensidad o Corriente



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

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

$R_T = 1K\Omega + 2,067\ K\Omega + 1,8\ K\Omega = 4,867\ K\Omega$

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

$V_1 = I \cdot R_1 = 2,05\ mA \cdot 1K\Omega = 2,05\ V$ //

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

$V_2 = 4,24\ V$ //

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

$V_1 + V_2 + V_3 + V_4 + V_5 = 10\ V$

$V_3 = 2,12\ V$ //

$V_4 = 2,12$ //

$V_5 = I \cdot R_5 = 2,05\ mA \cdot 1,8\ K\Omega = 3,67\ V$ //

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

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

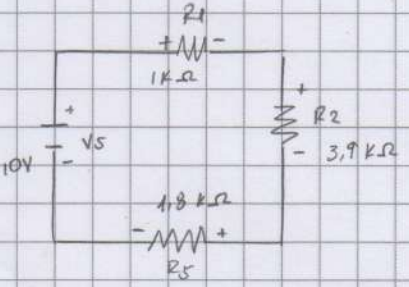
$i_2 = \frac{V_2}{R_2} = \frac{4,24V}{3,9K\Omega} = 1,09\ mA$ //

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

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

Calculos de la Trayectoria

- Trayectoria 1



$V_{R1} = I_1 R_1 = 2,055 \cdot 1 = 2,055\ V$ //

$V_{R2,3,4} = I_{2,3,4} \cdot R_{2,3,4} = 2,055 \cdot 2,0674 = 4,248\ V$ //

$V_{R5} = I_5 \cdot R_5 = 2,055 \cdot 1,8 = 3,698\ V$ //

$V_{R3,4} = V_{R2} = 4,248\ V$ //

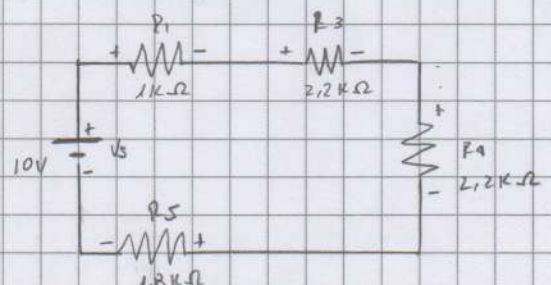
$V_{R3,4} = 2,124\ V$

$V_5 = V_1 + V_2 + V_5$ (Leyes de Kirchhoff)

$V_5 - V_1 - V_2 - V_5 = 0$

$10V - 2,055\ V - 4,248 - 3,698 = 0 \Rightarrow 0,001 \approx 0$ //

- Trayectoria 2.



- $V_{R1} = 2,055\ V$
- $V_{R3} = 2,124\ V$
- $V_{R4} = 2,124\ V$
- $V_{R5} = 3,698\ V$

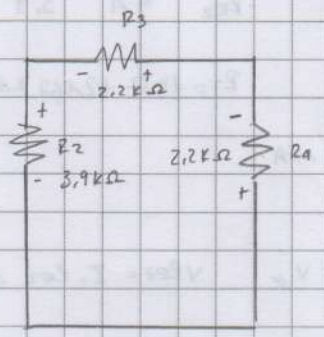
$V_S = V_{R1} + V_{R3} + V_{R4} + V_{R5}$ (Ley de Kirchhoff)

$V_S - V_{R1} - V_{R3} - V_{R4} - V_{R5} = 0$

$10V - 2,055V - 2,124V - 2,124V - 3,698V = 0$

$-0,001 \approx 0$

- Trayectoria B.



$V_{R2} = 4,248V$

$V_{R3} = 2,124V$

$V_{R4} = 2,124V$

$V_{R2} = V_{R3} + V_{R4}$

$V_{R2} - V_{R3} - V_{R4} = 0$

$4,248 - 2,124V - 2,124V = 0$

$0 = 0$