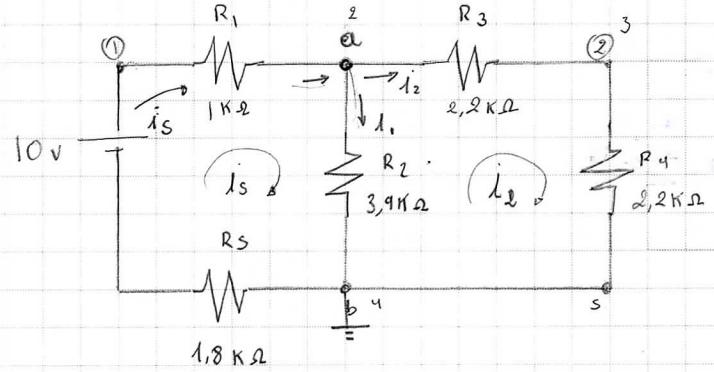
- Calculo de las corrientes en cada rama

$I_S = 2,05 \cdot 10^{-3}$ [A]



Metodo de nodos

Nodo A Nodo b = 0

$I_S = I_1 + I_2$

$I_S = \frac{V_a - V_b}{3400} + \frac{V_a - V_b}{4400}$

$I_S = \frac{V_a}{3400} + \frac{V_a}{4400}$

$I_S = V_a \left(\frac{1}{3400} + \frac{1}{4400} \right)$

$2,05 \cdot 10^{-3} = V_a (2,84 \cdot 10^{-4})$

$V_a = 4,235$ [V] //

$I_1 = \frac{V_a}{3400} = \frac{4,235}{3400}$

→ $I_1 = 1,085 \cdot 10^{-3}$ [A] //

→ $I_2 = \frac{V_a}{4400} = \frac{4,235}{4400} = 9,625 \cdot 10^{-4}$ [A] //

Metodo por mallas.

Malla ②

$-3400 (I_2 - I_S) - 2200 I_2 - 2200 I_2 = 0$

$-3400 I_2 + 3400 I_S - 4400 I_2 = 0$

$-8300 I_2 + 3400 I_S = 0$

$-8300 I_2 = -3400 I_S$

$I_2 = \frac{-3400 (2,05 \cdot 10^{-3})}{-8300}$

→ $I_2 = 9,632 \cdot 10^{-4}$ [A] //

$I_1 = I_S - I_2$

$I_1 = 2,05 \cdot 10^{-3} - 9,632 \cdot 10^{-4}$

→ $I_1 = 1,087 \cdot 10^{-3}$ [A] //

Corriente Nodos	Corriente malla
$I_S = 2,05 \cdot 10^{-3}$ [A]	$I_S = 2,05 \cdot 10^{-3}$ [A]
$I_1 = 1,085 \cdot 10^{-3}$ [A]	$I_1 = 1,087 \cdot 10^{-3}$ [A]
$I_2 = 9,625 \cdot 10^{-4}$ [A]	$I_2 = 9,632 \cdot 10^{-4}$ [A]