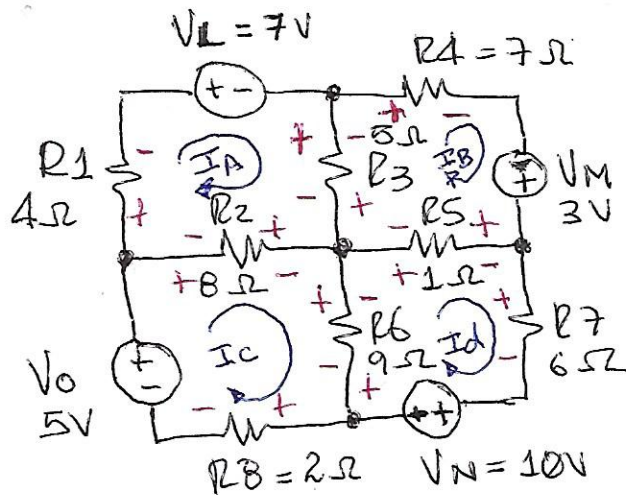


= Quiz Mallas =



Plantee las ecuaciones de las corrientes de cada malla y escriba los determinantes (no los soluciones).

$$\begin{aligned} \text{Malla A: } V_3 + V_2 + V_1 + V_L &= 0 \\ \text{Malla B: } V_3 + V_4 + V_5 &= V_M \\ \boxed{17I_a - 5I_b - 8I_c} &= -7 \\ \boxed{-5I_a + 13I_b - I_d} &= 3 \end{aligned}$$

$$\begin{aligned} \text{Malla C: } V_2 + V_6 + V_8 &= V_0 \\ \text{Malla D: } V_5 + V_6 + V_7 + V_N &= 0 \\ \boxed{-8I_a + 19I_c - 9I_d} &= 5 \\ \boxed{-I_b - 9I_c + 16I_d} &= -10 \end{aligned}$$

$$\Delta = \begin{vmatrix} I_a & I_b & I_c & I_d \\ 17 & -5 & -8 & 0 \\ -5 & 13 & 0 & -1 \\ -8 & 0 & 19 & -9 \\ 0 & -1 & -9 & 16 \end{vmatrix}$$

$$I_a = \frac{\begin{vmatrix} K & I_b & I_c & I_d \\ -7 & -5 & -8 & 0 \\ 3 & 13 & 0 & -1 \\ 5 & 0 & 19 & -9 \\ -10 & -1 & -9 & 16 \end{vmatrix}}{\Delta}$$

$$I_b = \frac{\begin{vmatrix} I_a & K & I_c & I_d \\ 17 & -7 & -8 & 0 \\ -5 & 3 & 0 & -1 \\ -8 & 5 & 19 & -9 \\ 0 & -10 & -9 & 16 \end{vmatrix}}{\Delta}$$

$$I_c = \frac{\begin{vmatrix} I_a & I_b & K & I_d \\ 17 & -5 & -7 & 0 \\ -5 & 13 & 3 & -1 \\ -8 & 0 & 5 & -9 \\ 0 & -1 & -10 & 16 \end{vmatrix}}{\Delta}$$

$$I_d = \frac{\begin{vmatrix} I_a & I_b & I_c & K \\ 17 & -5 & -8 & -7 \\ -5 & 13 & 0 & 3 \\ -8 & 0 & 19 & 5 \\ 0 & -1 & -9 & -10 \end{vmatrix}}{\Delta}$$

$$\Delta = 29417 \quad I_a = \frac{-18404}{29417} \quad I_b = \frac{-2233}{29417} \quad I_c = \frac{-11973}{29417} \quad I_d = \frac{-25260}{29417}$$

$$I_a = -0,62A \quad I_b = -0,07A \quad I_c = -0,4A \quad I_d = -0,85A$$