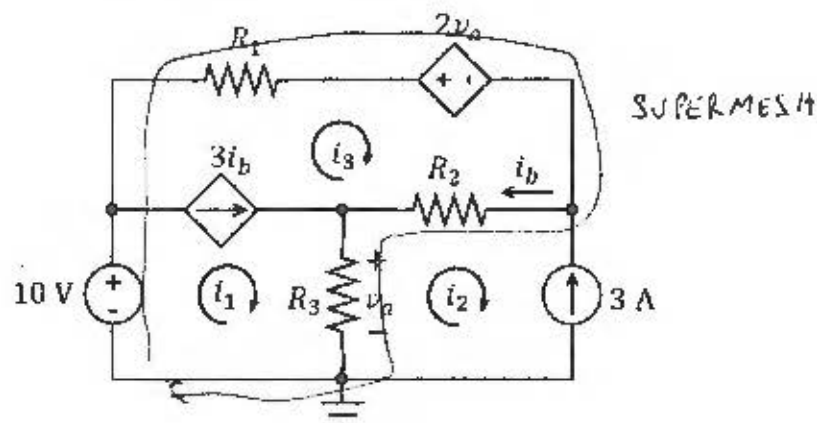


Find the mesh currents i_1 , i_2 , and i_3 .

$$R_1 = 16 \Omega$$

$$R_2 = 1 \Omega$$

$$R_3 = 1 \Omega$$



$$\otimes \quad i_2 = -3 \text{ A}$$

$$\otimes \quad i_1 - i_3 = 3 \cdot i_b = 3(i_3 - i_2) = 3i_3 + 9 \Rightarrow i_1 = 4i_3 + 9 \quad (1)$$

$$\otimes \quad \text{KVL SUPERMESH: } -10 + 16 \cdot i_3 + 2 \cdot (R_3)(i_1 + 3) + 1(i_3 + 3) + 1 \cdot (i_1 + 3) = 0$$

$$\Rightarrow -10 + 16i_3 + 8i_3 + 24 + i_3 + 3 + 4i_3 + 12 = 0$$

$$\Rightarrow 29i_3 = -29$$

$$\Rightarrow \boxed{i_3 = -1 \text{ A}} \quad \boxed{i_1 = 5 \text{ A}}$$

CHECK KVL

