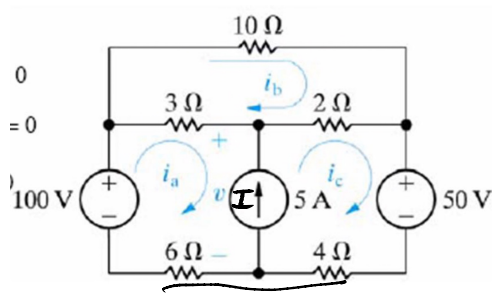


MESH



$$\text{Mesh a: } 3(i_a - i_b) + v + 6i_a - 100 = 0$$

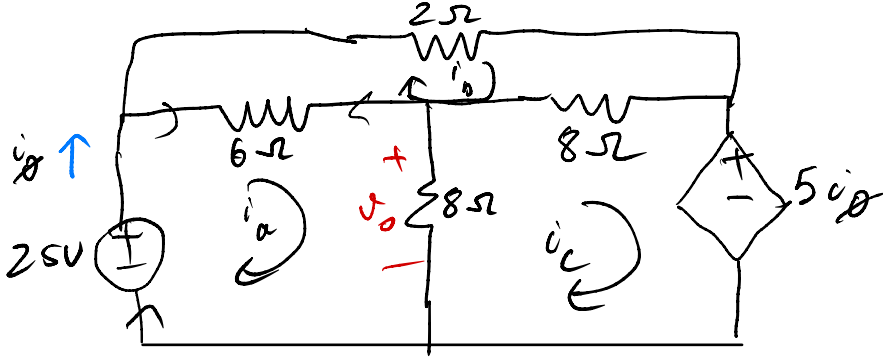
$$\text{Mesh b: } 2(i_c - i_b) - v + 50 + 4i_c = 0$$

$$(a), (b): 9i_a - 5i_b + 6i_c = 50$$

$$\text{Mesh b: } 10i_b + 2(i_b - i_c) + 3(i_b - i_a)$$

$$\Leftrightarrow -3i_a + 15i_b - 2i_c = 0$$

$$\bullet \quad \begin{cases} 9i_a - 5i_b + 6i_c = 50 \\ -3i_a + 15i_b - 2i_c = 0 \\ -i_a + i_c = 5 \end{cases} \Rightarrow \begin{cases} i_a = 1.75 \\ i_b = 1.25 \\ i_c = 6.75 \end{cases}$$



$$\text{Mesh a: } 6(i_a - i_b) + 8(i_a - i_c) = 25$$

$$\text{Mesh b: } 2i_b + 8(i_b - i_c) + 6(i_b - i_a) = 0$$

$$\text{Mesh c: } 8(i_c - i_a) + 8(i_c - i_b) + 5i_b = 0$$

$$\begin{cases} 14i_a - 6i_b - 8i_c = 25 \\ -6i_a + 16i_b - 8i_c = 0 \\ -3i_a - 8i_b + 16i_c = 0 \end{cases} \Rightarrow \begin{cases} i_a = 4 \text{ A} \\ i_b = 2.5 \text{ A} \\ i_c = 2 \text{ A} \\ i_b = 4 \text{ A} \end{cases}$$

$$v_o = 8(i_a - i_c) = 8 \text{ V}$$

