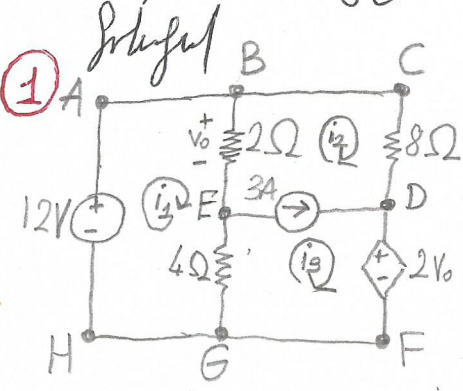


Ödev-II



$$V_0 = 2(i_1 - i_2) \text{ (I)}$$

$$i_3 = i_2 + 2 \text{ (A)}$$

$$ABGH \text{ (Mesh 1)} \rightarrow -12 + 2(i_1 - i_2) + 4(i_1 - i_3) = 0 \rightarrow$$

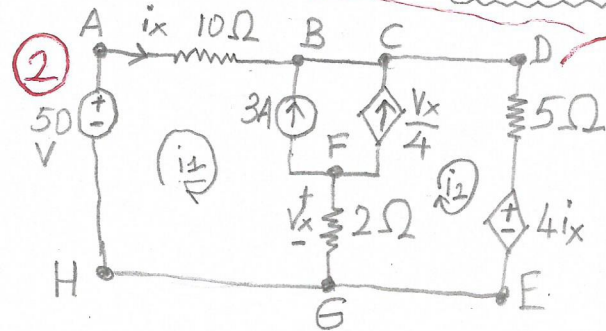
$$\rightarrow 2i_1 - 2i_2 + 4i_1 - 4i_3 - 12 = 0 \rightarrow 6i_1 - 2i_2 - 4i_3 = 12 \rightarrow 3i_1 - i_2 - 2i_3 = 6 \text{ (B)}$$

$$BCDFGE \text{ (Mesh 2-3)} \rightarrow 8i_2 + 2V_0 + 4(i_3 - i_1) + 2(i_2 - i_1) = 0 \rightarrow$$

$$\rightarrow 8i_2 + 2V_0 + 4i_3 - 4i_1 + 2i_2 - 2i_1 = 0 \rightarrow 5i_2 - 3i_1 + 2i_3 + V_0 = 0 \rightarrow$$

$$\text{I denkleme yerleştirilirse} \rightarrow -i_1 + 3i_2 + 2i_3 = 0 \text{ (C)}$$

$$A, B, C \text{ gözülürse} \rightarrow i_1 = 3,5A \quad i_2 = -0,5A \quad i_3 = 2,5A$$



$$V_x = 2(i_1 - i_2) \text{ (I)}$$

$$i_x = i_1$$

$$i_1 + 3 + \frac{V_x}{4} = i_2 \rightarrow \text{I yerleştir} \rightarrow$$

$$\rightarrow \frac{3}{2}i_1 - \frac{3}{2}i_2 + 3 = 0 \rightarrow$$

$$\rightarrow i_1 - i_2 + 2 = 0 \text{ (A)}$$

$$ABCDEGH \text{ (Mesh 1-2)} \rightarrow -50 + 10i_1 + 5i_2 + 4i_1 = 0 \rightarrow$$

$$\rightarrow 14i_1 + 5i_2 - 50 = 0 \text{ (B)}$$

$$A, B \text{ gözülürse} \rightarrow i_x = i_1 = 2,105A \quad i_2 = 4,105A$$

$$\rightarrow V_x = 2(i_1 - i_2) = -4V$$