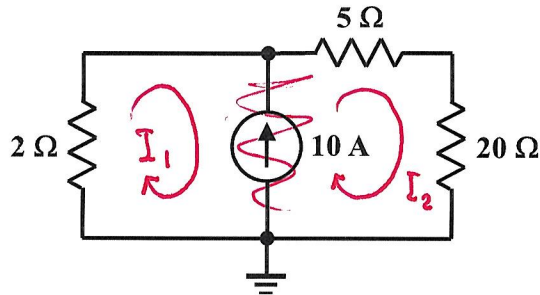


EE 2240  
Homework Problem #027

Assign mesh currents and express the mesh equations in the matrix form discussed in class.



Do not attempt to solve the equations.

$$I_2 - I_1 = 10 \text{ A} \quad (\text{constraint})$$

$$2 I_1 + 5 I_2 + 20 I_2 = 0 \quad (\text{KVL for supermesh})$$

In matrix form:

$$\begin{bmatrix} -1 & 1 \\ 2 & 5+20 \end{bmatrix} \begin{bmatrix} I_1 \\ I_2 \end{bmatrix} = \begin{bmatrix} 10 \\ 0 \end{bmatrix}$$