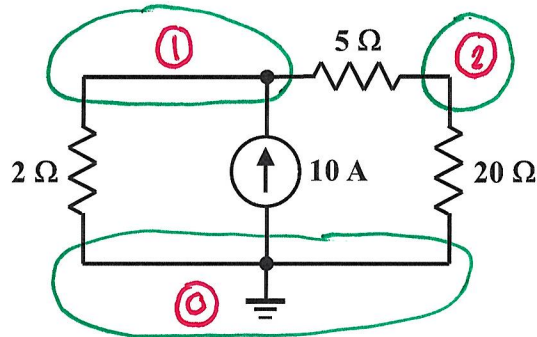Assign node labels and express the node equations in the matrix form discussed in class.

Do not solve the equations.

$$\frac{V_1}{2} - 10 + \frac{V_1 - V_2}{5} = 0 \qquad \text{(KCL for node 1)}$$

$$\frac{V_2 - V_1}{5} + \frac{V_2}{20} = 0 \qquad \text{(KCL for node 2)}$$

In matrix form:

$$\begin{bmatrix} \frac{1}{2} + \frac{1}{5} & -\frac{1}{5} \\ -\frac{1}{5} & \frac{1}{5} + \frac{1}{20} \end{bmatrix} \begin{bmatrix} V_1 \\ V_2 \end{bmatrix} = \begin{bmatrix} 10 \\ 0 \end{bmatrix}$$