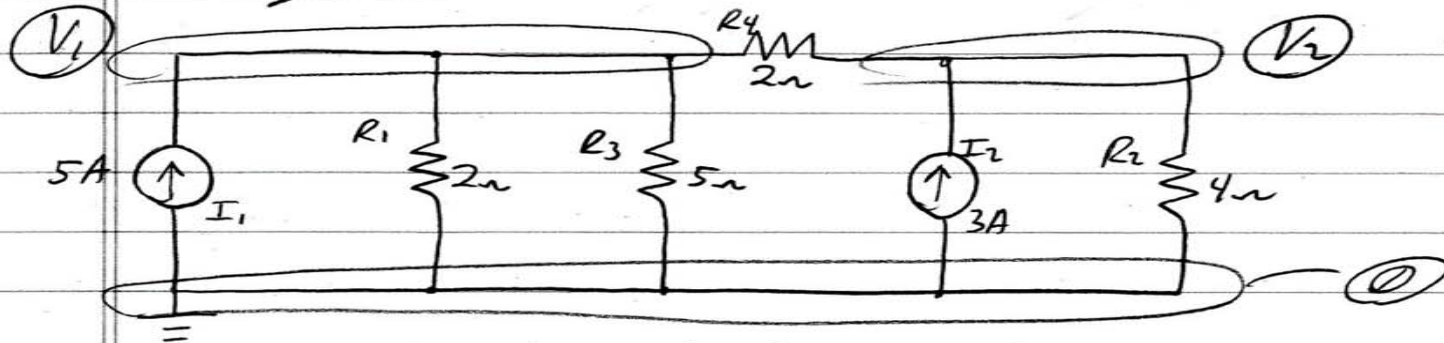


Write the nodal equations & using determinants, solve for the node voltages.



$$\begin{aligned} \text{Node } V_1 : 5 &= \frac{V_1}{R_1} + \frac{V_1}{R_3} + \frac{V_1 - V_2}{R_4} \\ 5 &= V_1 \left( \frac{1}{R_1} + \frac{1}{R_3} + \frac{1}{R_4} \right) - \frac{V_2}{R_4} \\ 5 &= 1.2 V_1 - 0.5 V_2 \end{aligned} \quad (1)$$

$$\begin{aligned} \text{Node } V_2 : 3 &= \frac{V_2 - V_1}{R_4} + \frac{V_2}{R_2} \\ 3 &= -\frac{V_1}{R_4} + V_2 \left( \frac{1}{R_4} + \frac{1}{R_2} \right) \\ 3 &= -0.5 V_1 + 0.75 V_2 \end{aligned} \quad (2)$$

$$V_1 = \frac{\begin{vmatrix} 5 & -0.5 \\ 3 & 0.75 \end{vmatrix}}{\begin{vmatrix} 1.2 & -0.5 \\ -0.5 & 0.75 \end{vmatrix}} = \frac{5.25}{0.65} = \boxed{8.08V}$$

$$V_2 = \frac{\begin{vmatrix} 1.2 & 5 \\ -0.5 & 3 \end{vmatrix}}{\begin{vmatrix} 1.2 & -0.5 \\ -0.5 & 0.75 \end{vmatrix}} = \frac{6.1}{0.65} = \boxed{9.38V}$$