



Nodal A

$$\frac{24 - V_A}{3} = \frac{V_A - V_B}{4} \Rightarrow \frac{96 - 4V_A}{12} = \frac{3V_A - 3V_B}{12}$$

$$\Rightarrow 96 = 7V_A - 3V_B$$

$$V_B: \frac{V_A - V_B}{5} + 2 = \frac{V_B - 0}{5} \Rightarrow \frac{5V_A - 5V_B}{20} + 2 = \frac{4V_B}{20}$$

$$\Rightarrow \frac{4V_B}{20} - \frac{5V_A - 5V_B}{20} = 2 \Rightarrow -5V_A + 9V_B = 20$$

$$\begin{cases} 7V_A - 3V_B = 96 \\ -5V_A + 9V_B = 20 \end{cases} \Rightarrow \begin{matrix} V_A = 18 \\ V_B = 10 \end{matrix}$$