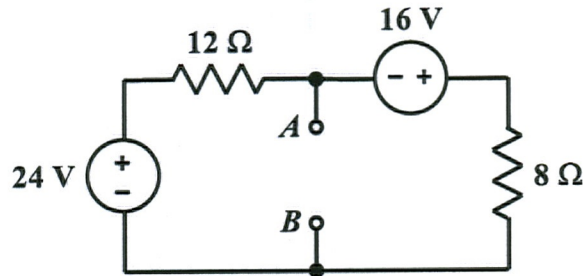
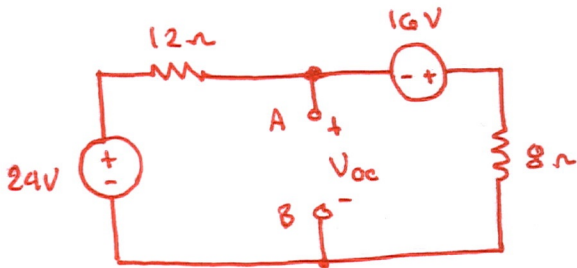


EE 2240
Homework Problem #27



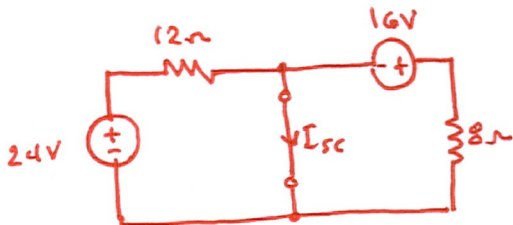
Find the Thévenin equivalent circuit with respect to terminals *A* and *B*.



$$V_{oc} = 24V - \cancel{\left(\frac{12\Omega}{20\Omega}\right)}(24V + 16V)$$

$$= 0V$$

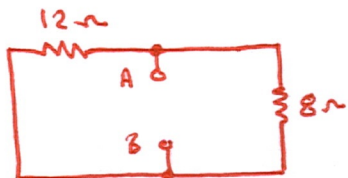
$$\Rightarrow V_T = 0V$$



$$I_{sc} = \frac{24V}{12\Omega} - \frac{16V}{8\Omega} = 0A$$

$$R_T = \frac{V_{oc}}{I_{sc}} = \frac{0V}{0A} = ?$$

Alternately:



$$R_{eq} = 12\Omega \parallel 8\Omega = 4.8\Omega$$

$$\Rightarrow R_T = 4.8\Omega$$

∴ The Thévenin equivalent circuit is:

