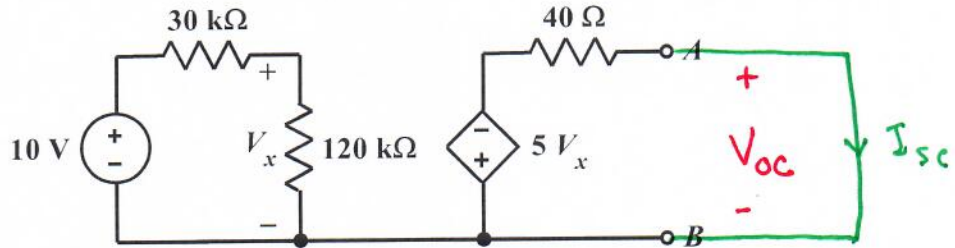


EE/EET 2240
Homework Problem #032



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

$$V_x = \frac{120\text{k}\Omega}{30\text{k}\Omega + 120\text{k}\Omega} \cdot 10\text{V} = 8\text{V}$$

$$V_{oc} = -5V_x = -40\text{V}$$

$$I_{sc} = -\frac{5V_x}{40\Omega} = -\frac{5(8\text{V})}{40\Omega} = -1\text{A}$$

$$R_N = \frac{V_{oc}}{I_{sc}} = \frac{-40\text{V}}{-1\text{A}} = 40\Omega$$

$$I_N = I_{sc} = -1\text{A}$$

