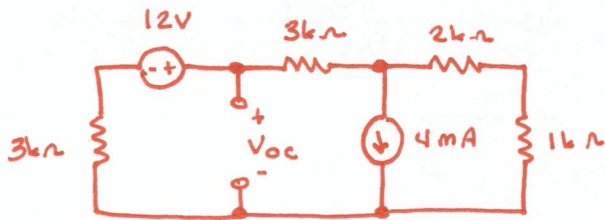
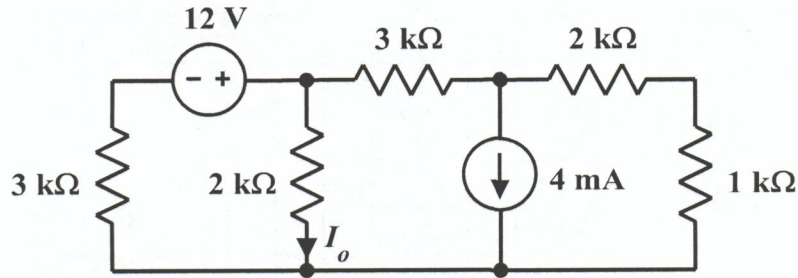


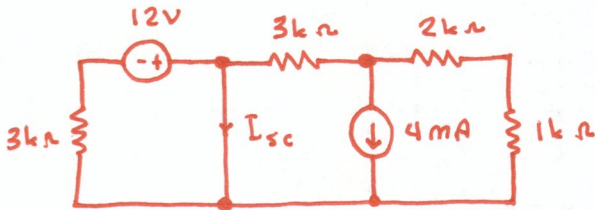
EE 2240
Problem #01

Use Norton's Theorem to find I_o .



$$V_{oc} = \frac{6}{9} (12V) - (3k\Omega) \left(\frac{3}{9}\right) (4mA)$$

$$= 4V$$

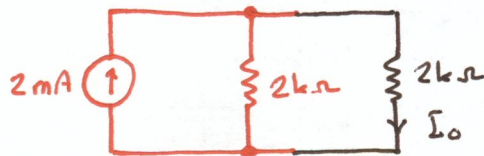


$$I_{sc} = \frac{12V}{3k\Omega} - \frac{1}{2} (4mA)$$

$$= 2mA$$

$$I_N = I_{sc} = 2mA$$

$$R_N = \frac{V_{oc}}{I_{sc}} = \frac{4V}{2mA} = 2k\Omega$$



$$I_o = \frac{2}{4} (2mA) = 1mA$$