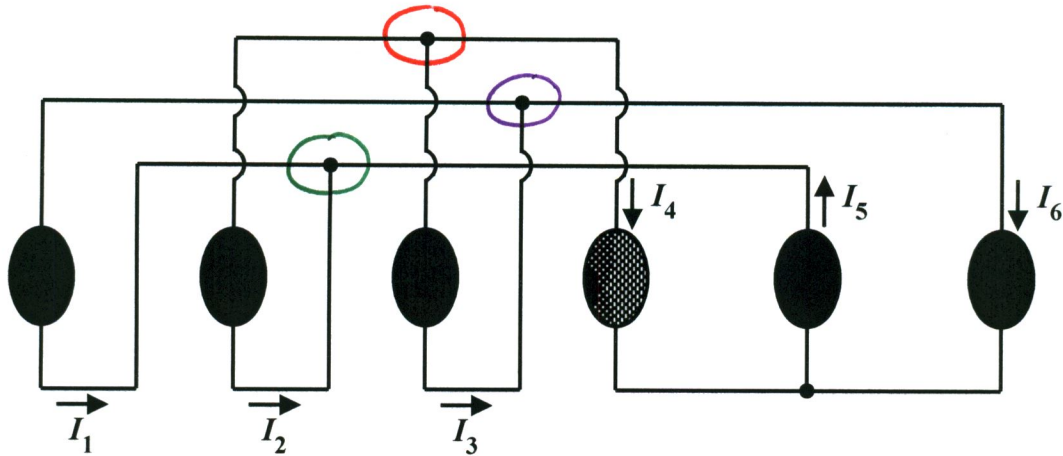


EE 2240
Problem #05

Given $I_1 = -20 \text{ mA}$, $I_2 = -12 \text{ mA}$, and $I_3 = 50 \text{ mA}$, find I_4 , I_5 , and I_6 .



$$\begin{aligned} I_2 + I_3 + I_4 &= 0 \Rightarrow I_4 = -I_2 - I_3 \\ &= -(-12 \text{ mA}) - 50 \text{ mA} \\ &= -38 \text{ mA} \end{aligned}$$

$$\begin{aligned} I_1 + I_2 + I_5 &= 0 \Rightarrow I_5 = -I_1 - I_2 \\ &= -(-20 \text{ mA}) - (-12 \text{ mA}) \\ &= 32 \text{ mA} \end{aligned}$$

$$\begin{aligned} +I_1 - I_3 + I_6 &= 0 \Rightarrow I_6 = I_3 - I_1 \\ &= 50 \text{ mA} - (-20 \text{ mA}) \\ &= 70 \text{ mA} \end{aligned}$$