

## **Homework Assignment #5 – Mesh Analysis**

### **Reading Assignment:**

Chapter 4, Sections 1 - 8, from **Electric Circuits, 8<sup>th</sup> Ed.**, by Nilsson

### **Problem Assignment:**

Mesh analysis problems: 31a, 32a, 33, 35, 41a, 42, 47, 15 (using mesh equations)

### **Selected Answers:**

4-11a)  $i_1 = 23.76 \text{ A}$ ,  $i_2 = 5.33 \text{ A}$ ,  $i_3 = 18.43 \text{ A}$ ,  $i_4 = 15 \text{ A}$ ,  $i_5 = 9.77 \text{ A}$ ,  $i_6 = 8.66 \text{ A}$

4-15)  $\Sigma P_{\text{diss}} = 306 \text{ W}$

4-24a)  $i_1 = 1 \text{ mA}$ ,  $i_2 = -20 \text{ mA}$ ,  $i_3 = 31 \text{ mA}$

4-25)  $v_o = 20 \text{ V}$

4-43)  $\Sigma P_{\text{del}} = 5157 \text{ W}$