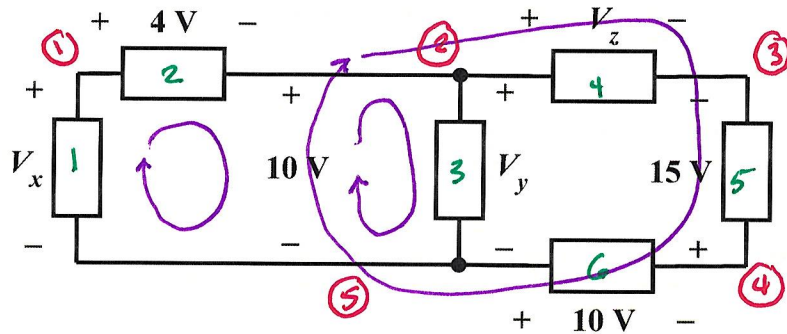


EE 2240  
**Homework Problem #004**

For the circuit shown below:



a. How many nodes does the circuit have?

5

b. How many branches make up the circuit?

6

c. Determine the value of  $V_x$ .

$$-V_x + 4V + 10V = 0 \Rightarrow V_x = 14V$$

d. Determine the value of  $V_y$ .

$$-10V + V_y = 0 \Rightarrow V_y = 10V$$

e. Determine the value of  $V_z$ .

$$V_z - 15V - 10V - 10V = 0 \Rightarrow V_z = 35V$$