Electric Circuits I

ELCT 301

Assignment I

You will be asked to solve one of the assigned problems during your tutorial in the week of 24-30 October 2022

Name:	
I.D. Number	
Tutorial:	
TA Name	

Problem I:

Use KCL and KVL to find i_Φ and v_Δ in the circuit shown below.

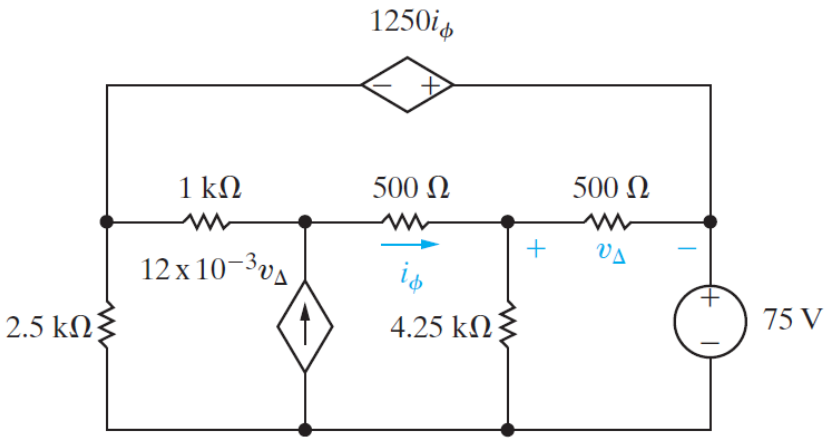

Figure 1

Problem II

Use KCL and KVL to calculate the power supplied or absorbed by the 200 mA source.

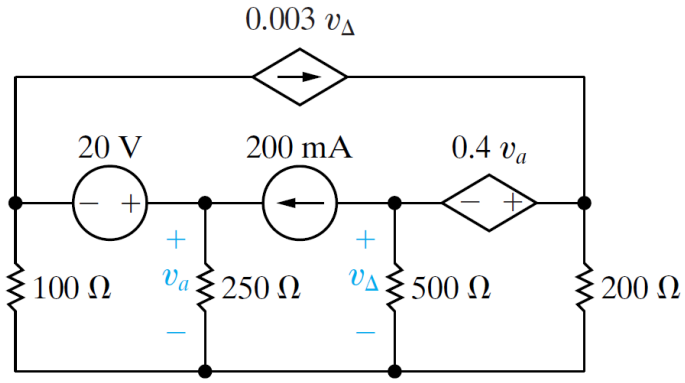

Figure 2

Problem III

For the circuit shown in Fig. 3, calculate (a) i_Δ and (b) v_o show that the power developed equals the power absorbed

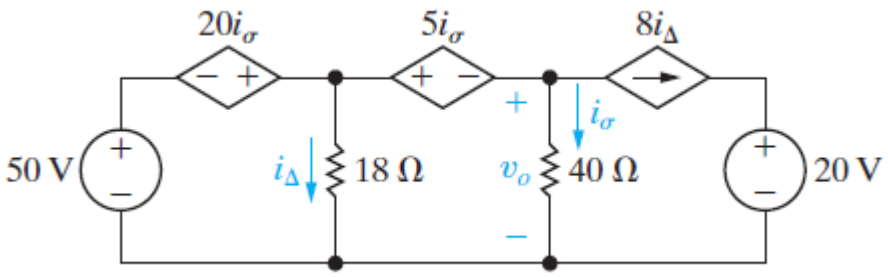

Figure 3

Problem IV

Using KVL & KCL Prove that the total power supplied is equal to the absorbed power in the circuit shown in Fig. 4

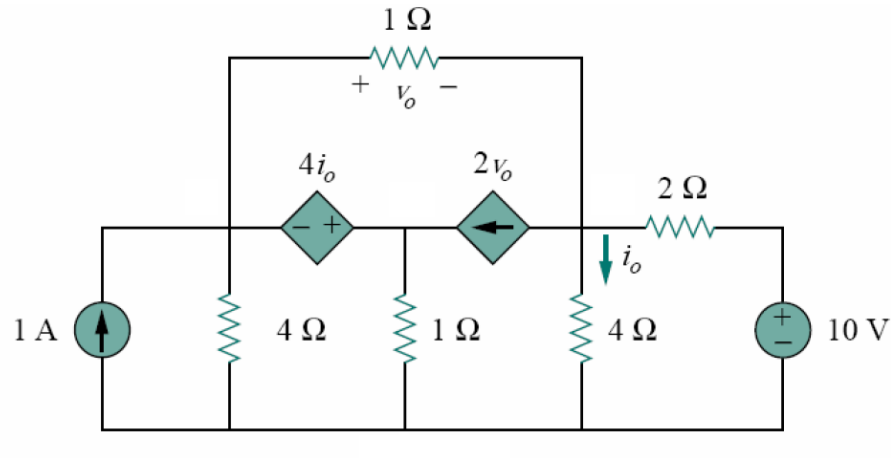

Figure 4

Problem V

Find the voltage difference between the nodes a and b in the circuit shown below

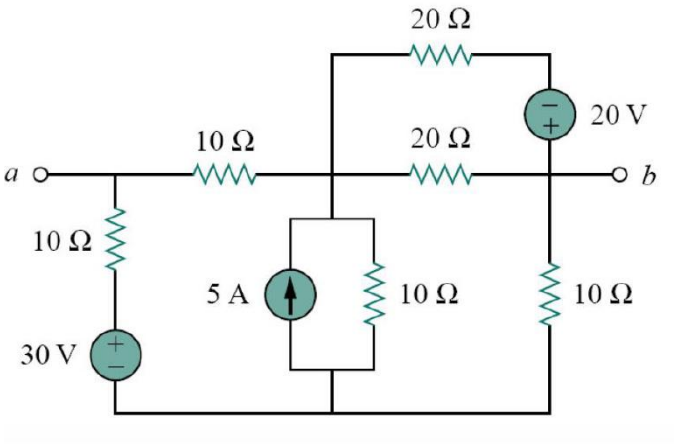

Figure 5

Problem VI

Use KCL and KVL to Find V_Δ in the circuit shown below in Fig. 6

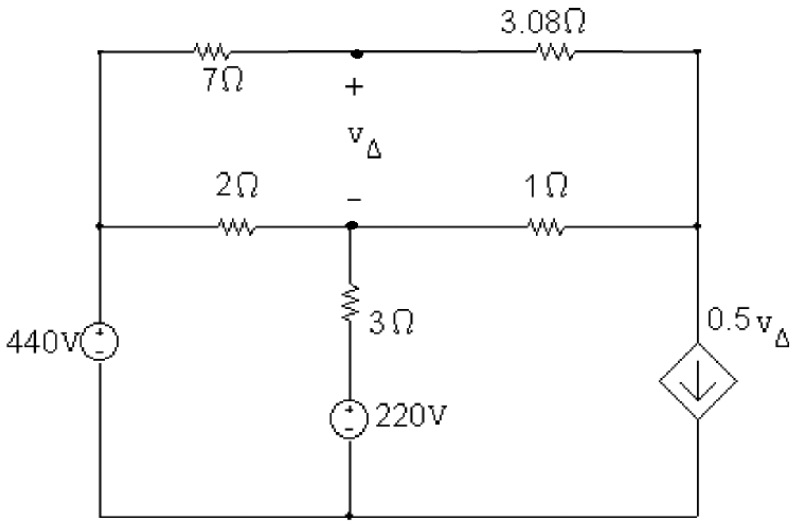

Figure 6

Problem VII

Use KCL and KVL to calculate the power supplied or absorbed by the dependent (Controlled) sources.

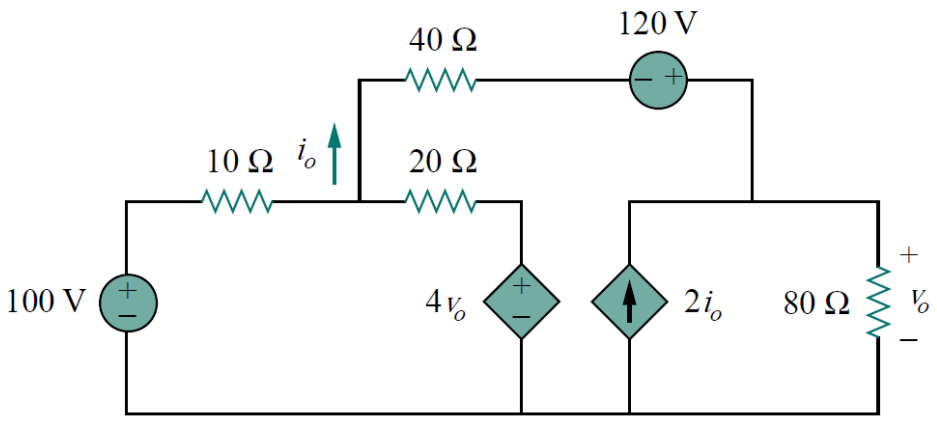

Figure 7