Problem 1:
1. Write KCL equations at Node A and the Supernode.
2. Write the KVL equations for Loop 1 and Loop 2.
3. What is the voltage drop across $R_3$ (Ohm’s Law)?

1.) KCL Node A: $i_{Vs} - i_{R3} - i_{R1}$
   KCL Supernode: $i_{R1} - i_{R2} + I_S + I_{R4} = 0$
2.) $-V_s - V_{R3} + V_{I5} = 0$ (KVL L1)
   KVL L2: $V_{R3} + V_{R1} - V_{R4} = 0$
3.) $V_{R3} = 2V1 \cdot I_{R3}$

There is another problem on the backside.
**Problem 2:**

1. Using the passive sign convention, mark current directions and signs on the resistors, the polarity on the current source and the direction of current flow through the voltage source.
2. Identify all nodes (trivial and non-trivial)
3. Identify all meshes.