Problem 1:
1. Write KCL equations at Nodes A and B.
2. What is the voltage drop across $R_3$ (Ohm's Law)?

\[
\begin{align*}
\text{KCL NA: } I_s - i_1 + I_2 &= 0 \\
\text{KCL NB: } -I_2 + i_1 + v_s - I_3 &= 0
\end{align*}
\]

\[V_{R_3} = R_3 I_3\]

Problem 2: Write KVL equations for loops 1 and 2.

\[
\begin{align*}
\text{KVL L1: } -V_{I_s} + V_{R_1} + V_{R_2} &= 0 \\
\text{KVL L2: } -V_{R_2} + V_{R_3} + V_0 &= 0
\end{align*}
\]

Problem 3:
1. Using the passive sign convention, mark current directions and signs on the resistors and current source.
2. Identify all nodes (trivial and non-trivial)
3. Identify all meshes.