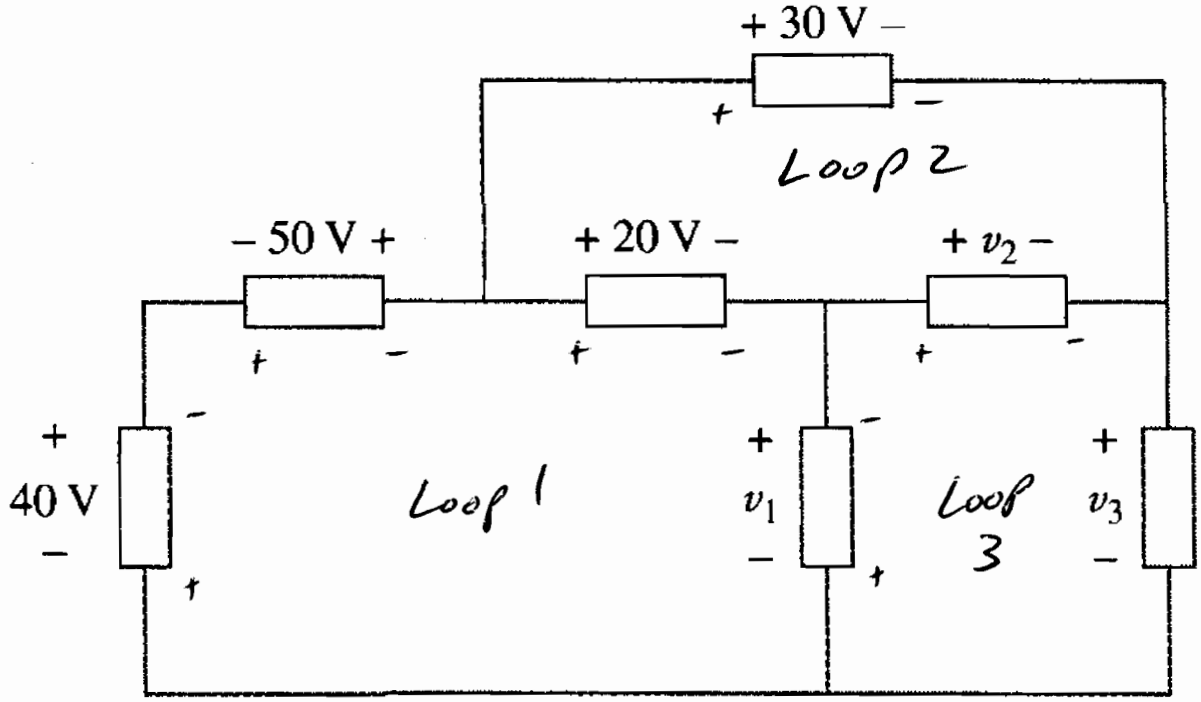
2.12 In the circuit , obtain v_1, v_2, and v_3. **Use KVL.**



Loop 1: $-40V - 50V + 20V + V_1 = 0$

$\hookrightarrow V_1 = 70V$

Loop 2: $30V - V_2 - 20V = 0$

$V_2 = 10V$

Loop 3: $-V_1 + V_2 + V_3 = 0$

$V_3 = V_1 - V_2 = 70 - 10$

$V_3 = 60V$