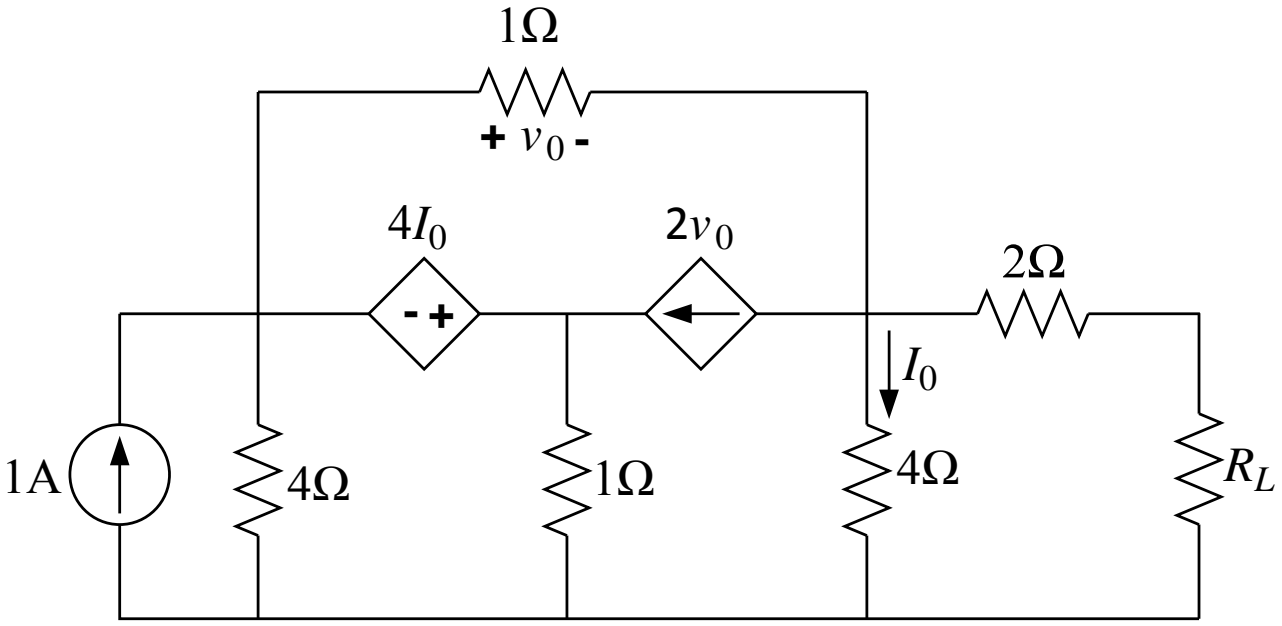
# CSE 209 Electrical Circuits

# Project

# PSpice Analysis for Maximum Power Transfer

1. Using PSpice Simulation, determine the Thevenin's equivalent of the circuit looking from the load resistance $R_L$.
2. From the Thevenin's equivalent circuit, theoretically determine the value of load resistance $R_L$ for maximum power transfer. Using PSpice Simulation of the Thevenin's equivalent circuit with $R_L$ for maximum power transfer, determine the value of maximum power transferred to $R_L$.
3. Using PSpice Simulation with resistance sweep, determine the value of $R_L$ for maximum power transfer and the corresponding maximum power.
4. Compare the value of $R_L$ and maximum power obtained in steps 2 and 3.



**Marks Distribution**

| Assessment Area | Mark |
|---|---|
| **C3: Cognitive: Applying** | 12 |
| **P2: Psychomotor: Manipulation** | 1 |
| **P3: Psychomotor: Precision** | 1 |
| **A2: Affective: Responding** | 1 |
| **Total** | **15** |