Assignment 5:

1. Find $I_o$ using source transformation.

2. Find $I_o$ using source transformation.

3. Find $V_o$ using superposition.

4. Find $I_o$ using superposition.
5. Use Thevenin’s Theorem to find \( V_o \). Also, draw the Norton circuit.

![Thevenin's Theorem Circuit](image)

6. Use Thevenin’s Theorem to find \( I_o \). Also, draw the Norton circuit.

![Thevenin's Theorem Circuit](image)

7. Determine the equivalent resistance \( R_{eq} \) looking into terminals A-B in the following circuit. Repeat using Multisim.

![EquivalentResistance Circuit](image)

8. Find \( R_L \) for maximum power transfer and determine the value of such power.
9. Find $R_L$ for maximum power transfer.

10. Solve for the resistor voltage as a function of $R$, $V(R)$, employing direct mesh analysis. Then determine the value of $R$ such that the sources deliver maximum power to resistor $R$. DO NOT USE THEVENIN OR NORTON THEOREMS. You may use Mathcad to assist you in solving the equations associated with this problem.