Assignment 2

The text below describes a circuit diagram and instructions. Please read carefully.

---

**Problem 1**

Consider the following circuit diagram:

![Circuit Diagram](image)

**Instructions**

1. Identify the components and their connections.

---

**Problem 2**

Explain the functioning of the circuit described in Problem 1, including how each component contributes to the overall operation.

---

**Problem 3**

Solve for the unknown variables in the circuit using Ohm's Law and Kirchhoff's Voltage Law.

---

**Problem 4**

Determine the efficiency of the circuit by calculating the power output and input.

---

**Problem 5**

Discuss the implications of your findings in real-world applications.

---

**Problem 6**

Propose improvements to the circuit to enhance its performance.

---

**Problem 7**

Conclude with a brief summary of the key points from your analysis.

---