## Course: ECE 53a

Quiz \#1
Instructor: Pamela Cosman
Date: 1/28/09

First Name: $\qquad$

Last Name: $\qquad$

There are 4 problems.
The problems are worth different numbers of points, as listed here.

| Problem | Possible | Score |
| :--- | :--- | :--- |
| 1 | 9 |  |
| 2 | 10 |  |
| 3 | 11 |  |
| 4 | 10 |  |
| Total | 40 |  |

This quiz is CLOSED BOOK, NO CALCULATORS ALLOWED.
You are allowed ONE page of notes, 8.5 by 11.
You need to show your work for all problems.

Problem 1: Find the power absorbed or supplied by each of the three components in this circuit. For each one, make it clear whether your answer is a power supplied, or a power absorbed.


Problem 2: Find $I_{o}$ in the following circuit using nodal analysis:


Problem 3: Find $V_{0}$ in the following circuit using mesh analysis. Hint: you can use a KVL supermesh equation.


Problem 4: Find (and draw) the Thevenin equivalent of the following circuit at the terminals A-B:


