

ECE 210 — Exam # 1

Estimated time for completion: <1 hour
1 March 2013

Rules of the Exam

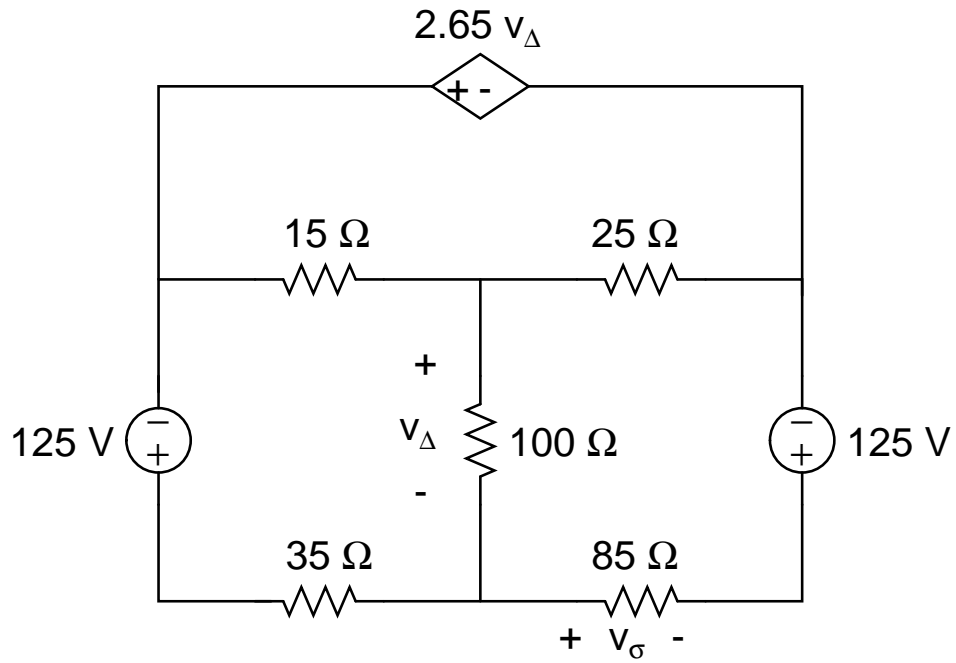
Rule 1: The examination period begins at 1:10pm on Friday 1 March 2013 and ends at 2:00pm on Friday 1 March 2013.

Rule 2: There are four problems. Each problem has equal weight.

Rule 3: The exam is closed book and closed notes but you may use a 4" x 6" sheet of paper with notes during the exam. You may use a calculator.

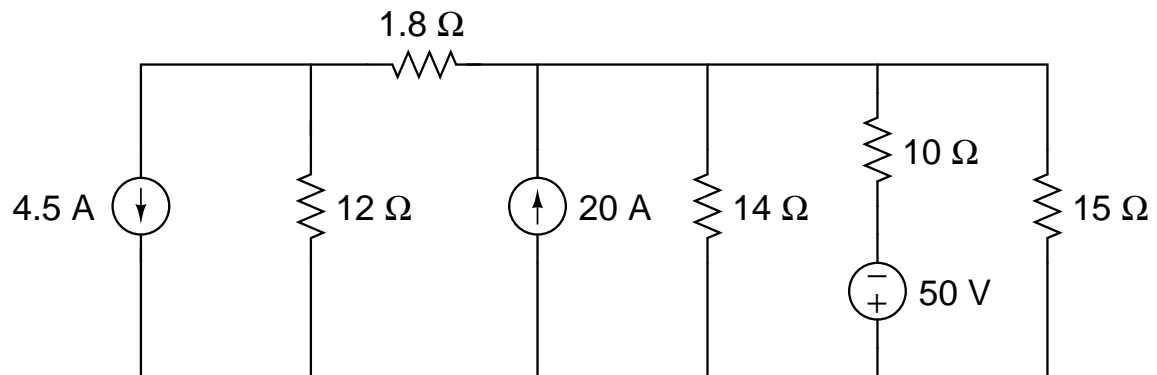
Name

Problem 1. In the circuit below:



What is the voltage v_{σ} ? _____

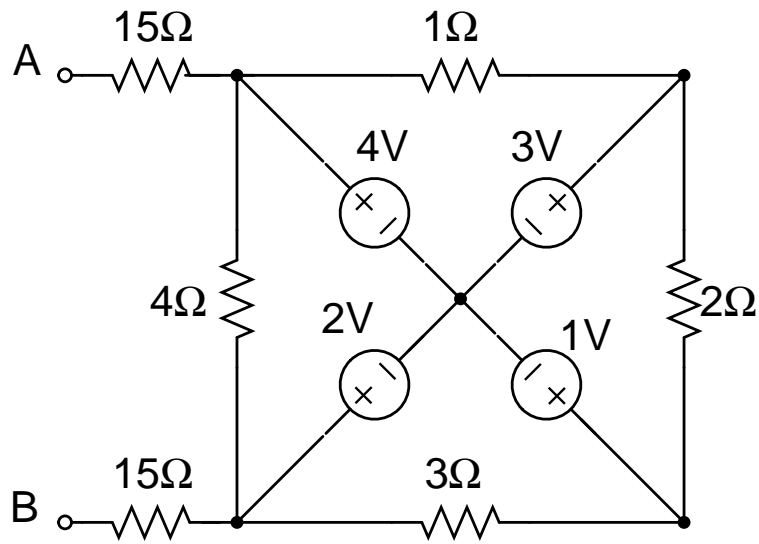
Problem 2. In the circuit below:



How much power is dissipated in the circuit? _____

How much power is generated in the circuit? _____

Problem 3 Draw the Thévenin Equivalent circuit at terminals “A” and “B” for the circuit below:



Problem 4

The op-amp below is ideal. Sketch the output voltage V_o for the given input voltage V_{in} . Make sure to label the “Y-axis” of the graph.

