Lectures Covered: Lecture47 - Lecture49

HW should be turned in by Monday, Oct. 27, before 4:30pm

Solve all the problems. All problems will not be graded, only a selection of HW problems will be graded.

Show all relevant steps. Don’t just write down the answers.

Late HWs will not be accepted. HW with lowest grade will be dropped. Lecture Students: turn in your HW in class. Recitation students: turn in your HW at the ECE Office Front Desk. HWs turned-in anywhere else will not be accepted.

Show your work on these pages, attach additional pages if necessary.

• Be sure to organize the pages in order and staple them all together, otherwise you will lose one point

• Fill out the following section. You will lose an additional point if you fail to provide these details

Your Last Name_____________________________________
Your First Name_____________________________________

1. Lecture Student ___________ or Recitation Student__________ (check one)
2. If Recitation then fill out the following
   Name of recitation instruction__________________________ Date/time of recitation__________________________
3. Your Lab Section/Group________________________________________
Problem 1:
(a) Determine $v$: 

![Circuit diagram with 10Ω resistor and 1A current source]
b) Determine $i$: 

\[ 5 \Omega \quad 10 \Omega \quad 10 \Omega \]

\[ 5 \text{V} \]
Problem 2:
(a) Determine i and v:
(b) Determine $i$ and $v$:
Problem 3: Determine the power (also indicate consumed or delivered) by the independent sources.
Problem 4: Determine $v_o$ and the power delivered by the independent source. The equivalent circuit of the block is shown below.
Problem 5:
a) Determine $v_{oc}$
Determine $i_{sc}$
Problem 6:
  a) Determine $v$: 

![Diagram of circuit with 1A source and two 10Ω resistors connected in series to a voltage source]
b) Determine $v$ and $i_{sc}$
Problem 7: Determine $A = v_o/v_i$:
Problem 8: Determine $v_1$, $v_2$, $v_3$, $v_4$ and $i_1$: 

![Diagram of the circuit with 10V source, 10Ω resistors, and unknown voltages and current]
Problem 9: Determine $v$: 

\[ \begin{align*} 
\text{Diagram with circuit elements and variables.} 
\end{align*} \]
Problem 10: Determine the power (also indicate consumed or delivered) by the dependent source, independent source and resistance R1 in Problem 9.