Homework 5: Reactive Elements

Introduction

The problems for this week focus on reactive elements and DC steady state.

Problems

Connect

(1) A&S 6.6.

(2) A&S 6.8.

(3) A&S 6.17.

(4) A&S 6.46.

(5) A&S 6.48.

(6) A&S 6.55.

(7) Based on **A&S 6.64**. In addition to what is asked on Connect, find all the following:

$$
\begin{array}{ccc}
i_{\mathrm{L}}(0^-) & i_{\mathrm{L}}(0^+) & \lim_{t \to \infty} i_{\mathrm{L}}(t) \\
v_{\mathrm{L}}(0^-) & v_{\mathrm{L}}(0^+) & \lim_{t \to \infty} v_{\mathrm{L}}(t)
\end{array}
$$

You will not be required to turn those items in but do need to know how to find them.

Sakai

None

On your own: Complex Numbers

Learn how to make your calculator do problems like this quickly. Also, find your results in *both* rectangular and polar form. There is a Pundit Page on "Calculator Tips" at: `http://pundit.pratt.duke.edu/wiki/Calculator_Tips`; the section on how to use the Casio fx-991EX "CLASSWIZ" is underway.

- **A&S 9.8**.
- **A&S 9.9**.
- **A&S 9.12**.
- **A&S 9.13**.
- **A&S 9.14**.