Spring, 2006

Physics 263: BTM Problem Set #9

These problems are from BTM Chapter 5, "Complex Numbers." Please be sure to read the text. Please ask questions! It is due by 5:30pm in the box in 1011 on Friday, April 28.

1. **BTM Problems 5.3.2. and 5.3.3.** Warm-up problems for complex numbers in polar form.
2. **BTM Problem 5.3.4.** Standard trigonometric identities but with $e^{i\theta}$.
3. **BTM Problem 5.3.6.** DeMoivre's Theorem is worth playing with. Here is a typical application.
4. **BTM Problem 5.4.4.** Basic study of a LCR circuit using complex exponentials.
5. **BTM Problem 5.4.6.** Applying the rule for the net impedance of parallel circuit elements.
6. **BONUS: BTM Problem 5.4.7.** Solving an LCR circuit problem with given initial conditions.