## Math 307 - Homework 5a - Dr. Loveless <br> DUE Never

This short assignment will not be graded, but you are expected to complete this assignment and know this material before midterm 2. This material can be included on the second midterm.

As always, this is a minimal list of problems, I strongly encourage you to do more problems than are assigned.

1. $3.8 / 5,6,7,8,16$
2. Old Exam Practice (pertaining to 3.8):
(a) Do problem 4 from the Winter 2013 (Erickson) Midterm 2.
(b) Do problems 4 and 5 from the Summer 2013 (Sarantsev) Midterm 2.
(c) Do problem 6 from Fall 2001 (Palmieri) Midterm 2.

## NOTES AND SPECIAL INSTRUCTIONS :

1. On 3.8/7(b): use a graphing device to see the graph and make a rough sketch.
2. On 3.8/8: Just a warning, the coefficients you find (both for the particular solution and for the initial conditions) are a little messy to write as fraction, so go ahead and write your numbers as decimals if you like. Also, you should be able to make a rough sketch here without a graphing device (since you can find the amplitude and period).
3. On 3.8/12: The forcing function is a constant $E(t)=12$, so this is just another chance to practice solving a nonhomogeneous equation (in other words, practice the undetermined coefficients method).
