Math 307 Week 3 Newsletter – Dr. Loveless

UPCOMING SCHEDULE:

Friday:	**Test Prep 2!** and Section 2.7 (Euler's Method for approximation)
Monday:	Review for midterm (bring old exam and homework questions)
Wednesday:	**Midterm 1** (covers all material we have discussed through 2.7)
Next Friday:	Section 3.1: Second order (linear constant coefficient homogenous with 2 real roots)

Midterm 1 is Wednesday, April 20 and covers:

1. **1st order solving methods**:
   Separating: see 2.2 problems and in many other sections
   Integrating Factor: see 2.1 problems and in many other sections
   Exact: see 2.6 problems
   Change of Variable: see problems from lecture and from homework 2
2. **Equilbrium Analysis (Stable, Unstable, Semistable) and slope fields**: see 2.5 problems
3. L**inear/Nonlinear and basic existence/uniqueness**: see 2.4 problems
4. **Applications**: see 1.1, 2.3, and 2.5 problems
5. **Numerical Analysis (Euler's method)**: see 2.7 problems

You are allowed:

a) An 8.5 by 11 inch sheet of handwritten notes (front and back)
b) A basic scientific calculus (no graphing calculators and no calculator that can do calculus).
c) Something to write with.

HOMEWORK:

HW 2a is posted here: http://www.math.washington.edu/~aloveles/Math307Spring2016/homework.html
You should complete this by Sunday. (You will not hand it in, but you must know this material for exam 1).

NEW POSTING:

Here, again, is the course website: http://www.math.washington.edu/~aloveles/Math307Spring2016/index.html
These are all original review sheets written by me. I have just written some of these so beware of typos (but I have gone through a couple edits so hopefully I caught most the typing errors).

1. **Detailed 2.6 (Exact Equations) Review and Additional Examples**:
   http://www.math.washington.edu/~aloveles/Math307Spring2016/m307Review2-6.pdf
2. **Detailed 2.7 (Euler's Approximation Method) Review and Additional Examples**:
   http://www.math.washington.edu/~aloveles/Math307Spring2016/m307Review2-7.pdf
3. **Brief summary of all our first order solving methods**:
   http://www.math.washington.edu/~aloveles/Math307Spring2016/m307ReviewFirstOrderSolving.pdf

4. **Full Exam 1 Review (contains a one page review followed by all other review sheets I have made in one file)**:
   http://www.math.washington.edu/~aloveles/Math307Spring2016/m307Exam1ReviewCombined.pdf

Please check out and read these review sheets. I intend them to be part of your reading. You should read the book, come to lecture, then read the posted review and examples. Doing these three things should make the material and concepts much clearer in your head (and it will make the homework and exams much easier).

OLD EXAMS:
Here, again, is my personal Math 307 exam archive:
http://www.math.washington.edu/~aloveles/Math307Spring2016/examarchive.html

And here is some targeted practice on the current material. See previous newsletters for targeted old exam review for previous topics.

Practice for 2.6 (Exact Equations):
Problem 2a: http://www.math.washington.edu/~aloveles/Math307Spring2016/sp15m307e1.pdf
Problem 2b: http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm1e_solutions.pdf
Problem 1b: http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm1h.pdf

Practice for 2.7 (Euler's Method):
Problem 4a: http://www.math.washington.edu/~aloveles/Math307Spring2016/sp15m307e1.pdf
Problem 4: http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm1.pdf
Problem 3b: http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm_1_wi14_spicer.pdf

I hope this helps!

Dr. Andy Loveless