

Math 307 Week 2 Newsletter – Dr. Loveless

UPCOMING SCHEDULE:

Friday: Section 2.4 (theory: existence/uniqueness and linear/nonlinear)
Monday: Section 2.5 (Autonomous Equations and Slope Fields/Equilibrium Analysis)
Wednesday: Section 2.6 (Exact Equations)
Next Friday: **Test Prep 2!** and Section 2.7 (Euler's Method for approximation)

Note: We will have a short test Prep next Friday, April 15th. It will similar to my test prep from last year. Here is my test prep from last year:

<http://www.math.washington.edu/~aloveles/Math307Spring2016/Test%20Prep%202.pdf>

and here are solutions:

<http://www.math.washington.edu/~aloveles/Math307Spring2016/Test%20Prep%202%20Solutions.pdf>

Problems 2 and 3 from the second page of this test prep help illustrate 2.4 concepts.

Problem 1 from the second page helps illustrate 2.5 concepts.

Check those out!

Also remember Midterm 1 is Wednesday, April 20, covers 2.1-2.7

HOMEWORK:

HW 2 Due Wed: <http://www.math.washington.edu/~aloveles/Math307Spring2016/homework.html>

Read all the instructions! Ask me if you have questions.

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 2.3 (Applications) Review:

<http://www.math.washington.edu/~aloveles/Math307Spring2016/m307Review2-3.pdf>

2. Detailed 2.4 (Theory) Review (5 examples are given, it will help to read them all carefully):

<http://www.math.washington.edu/~aloveles/Math307Spring2016/m307Review2-4.pdf>

3. Detailed 2.5 (Equilibrium) Review (read the examples!):

<http://www.math.washington.edu/~aloveles/Math307Spring2016/m307Review2-5.pdf>

4. Introduction to partial derivatives (if you have never seen them). Try the examples from this review and see if you can get the same answers as given. Look at this before the 2.6 lecture.

<http://www.math.washington.edu/~aloveles/Math307Spring2016/m307PartialDerivatives.pdf>

5. Detailed 2.6 (Exact Equations) Review (try all the examples):

<http://www.math.washington.edu/~aloveles/Math307Spring2016/m307Review2-6.pdf>

6. Brief summary of all our first order solving methods:

<http://www.math.washington.edu/~aloveles/Math307Spring2016/m307ReviewFirstOrderSolving.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 more clear 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:

Practice for 2.3 (Applications):

Mixing:

Problem 3b from: <http://www.math.washington.edu/~aloveles/Math307Spring2016/sp15m307e1.pdf>

Problem 3 from: <http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm1f.pdf>

Problem 3a from: <http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm1h.pdf>

Money:

Problem 5 from: <http://www.math.washington.edu/~aloveles/Math307Spring2016/sp15m307e1.pdf>

Problem 5 from: <http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm1.pdf>

Velocity:

Problem 4 from: <http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm1g.pdf>

Problem 5 from: <http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm1f.pdf>

Problem 5a: http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm1_practice_spicer.pdf

Problem 4 from: <http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm1e.pdf>

Other:

Problem 4 from: <http://www.math.washington.edu/~aloveles/Math307Spring2016/sp15m307e1.pdf>

Problem 5 from: <http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm1g.pdf>

Practice for 2.4 (Existence/Uniqueness and Linear/Nonlinear):

Problem 2b from: <http://www.math.washington.edu/~aloveles/Math307Spring2016/sp15m307e1.pdf>

Problem 2a: http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm_1_wi14_spicer.pdf

Practice for 2.5 (Autonomous and Equilibrium Analysis):

Problem 4 from: <http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm1f.pdf>

Problem 4: http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm_1_wi14_spicer.pdf

Problem 4 from: <http://www.math.washington.edu/~aloveles/Math307Spring2016/midterm1h.pdf>

Problem 3a from: <http://www.math.washington.edu/~aloveles/Math307Spring2016/sp15m307e1.pdf>

I hope this helps!

Dr. Andy Loveless