Differential Equations

Math 341 Fall 2014 MWF 3:00-3:55pm Fowler 307

 http://faculty.oxy.edu/ron/math/341/14/

Worksheet 29

TITLE Review for Exam #2

CURRENT READING Blanchard, Chapter 3 (Everything except 3.8), Chapter 5 (5.1, 5.3, 5.4) and Chapter 6 (6.1, 6.2, 6.3 only)

SUMMARY

We will review the topics of the last section of the course which the Exam will be on.

Here are the titles of the worksheets we have had in the second section of the course.

(28) Introduction to Convolution and the Product Rule for Laplace Transforms

(27) Laplace Transforms and the Delta Function

(26) Laplace Transforms and the Heaviside Function

(25) Introduction to Laplace Transforms

(24) Analysis of Nonlinear Systems: Gradient Systems

(23) Analysis of Nonlinear Systems: Hamiltonian Systems

(22) Analysis of Quasi-Linear Systems: Linearization

(21) The Big Picture Of Linear Systems: The Trace-Determinant Plane

(20) Linear Systems with Repeated Eigenvalues

(19) Linear Systems with Complex Eigenvalues

(18) Linear Systems with Real Eigenvalues

(17) Straight Line Solutions of Linear Systems

(16) Introduction to Linear Systems

Next to each of them topics above place a letter.

A - I completely understand this topic and am confident about answering questions on it

B - I understand this topic mostly but am not confident about answering questions on it

C - I barely understand this topic and could only answer a basic question about it

D - I don't know anything about this topic at all.

The Quizzes in this section of the class have been:

Quiz 9 *Introduction to Laplace Transforms*

Quiz 8 *Bifurcations in Quasi-Linear Systems*

Quiz 7 *Bifurcations in Linear Systems of ODEs*

BONUS QUIZ 3 *Visualizing Solutions of Linear Systems of ODEs*

Quiz 6 *Linear Systems of ODEs*

Exercise
Write down a topic that you are confident you understand completely and share your topic with your nearest neighbor. Explain your topics to each other.

GroupWork
Write down a topic that you do NOT understand very well and share your topic with members of your group and work together to explain it to each other.