Differential Equations

Worksheet 15

TITLE Review for Exam #1
CURRENT READING Blanchard, Chapter 1, Chapter 2 (2.1, 2.2, 2.4, 2.5, 2.6)

SUMMARY
We will review the topics of the first two chapters of the book.

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

(14) Existence and Uniqueness for Systems of 1st order ODEs

(13) Euler's Method for Systems of 1st Order ODEs

(12) Solving (Partially Decoupled & Decoupled) Systems of 1st Order ODEs

(11) The Geometry of Systems of 1st Order ODEs

(10) Introduction to Systems of 1st Order ODEs

(9) Integrating Factors for Solving Linear 1st Order ODEs

(8) (Solving Homogeneous and Nonhomogeneous) Linear 1st Order ODEs

(7) Bifurcations

(6) Phase Lines and Classification of Equilibria

(5) Existence and Uniqueness Theorem

(4) Euler's Method

(3) Slope Fields

(2) Separation of Variables Technique for Solving ODEs

(1) Introduction to Differential Equations

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:

BONUS QUIZ 2 *Review of Topics in Chapter 1*

Quiz 5 *Solutions of Linear Differential Equations* [TRUE/FALSE]

Quiz 4 *Bifurcations Practice*

Quiz 3 *Existence and Uniqueness Theorem*

Quiz 2 *The Logistic Population Model*

BONUS QUIZ 1 *Singular Solutions*

Quiz 1 *Introduction to Differential Equations*

$\boxed{\text{Exercise}}$
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.

$\boxed{\text{GROUPWORK}}$
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.