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# Differential Equations

Math 341 Fall 2010  
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Fowler 110 MWF 2:30pm - 3:25pm  
<http://faculty.oxy.edu/ron/math/341/10/>

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## Week 5

**Monday September 27** : *Worksheet 10*:

**First Order Systems of ODEs.** We will be introduced to models that involve a system of first order differential equations.

Reading:

Blanchard, 2.1

Homework #10:

Blanchard, Chapter 1 Review: 3, 4, 6, 10, 11, 12, 29, 47

Quiz #2 Due

**Wednesday September 29** : *Worksheet 11*:

**Geometry of Systems of ODEs.** We will be exposed to the beautiful pictures which can result when one does quantitative analysis on systems of ODEs (phase portraits).

Reading:

Blanchard, Section 2.1

Homework #11:

Blanchard, Section 2.1: 1, 2, 3, 5, 7, 10.

**Friday October 1** *Worksheet 12*:

**Analytical Methods for Special Systems.** We will learn an analytical technique to obtain solutions of specific classes of linear systems (decoupled and partially decoupled).

Reading:

Blanchard, Section 2.2

Homework #12:

Blanchard, Section 2.2: 7, 8, 10, 24, 25.