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# Linear Systems

Math 214 Spring 2008  
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Fowler 307 MWF 9:30pm - 10:25am  
<http://faculty.oxy.edu/ron/math/214/08/>

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## Week 9

**Monday March 24** *Class 20:*

**Eigenvalues and Eigenvectors.** We will be introduced to the concept of eigenvectors and eigenvalues of a matrix for  $2 \times 2$  matrices.

Reading:

Poole, Section 4.1

Homework #19: (due in *Class 21*)

Poole, Section 4.1: 3,4,5,6,10,11,16,17,21,22. EXTRA CREDIT 36, 37.

**DUE in Class 20:** HW # 17 (Section 3.6: 1,2,3,6,7,15,17,19. EXTRA CREDIT 28) and HW # 18 (Chapter 3 Review : 1, 11, 13, 14, 15, 18. EXTRA CREDIT 19.)

**Wednesday March 26** *Class 21:*

**Determinants.** We will learn all sorts of ways to compute determinants of matrices.

Reading:

Poole, Section 4.2

Homework #20: (due in *Class 22*)

Poole, Section 4.2: 4,6, 7, 10, 15, 26, 27, 32, 33, 48, 49,50,51,52. EXTRA CREDIT 46.

**Friday March 28** *Class 22:*

**MORE Eigenvalues and Eigenvectors.** We will expand our knowledge to include eigenvalues and eigenvectors of  $n \times n$  matrices.

Reading:

Poole, Section 4.3

Homework #21: (due in *Class 24*)

Poole, Section 4.3: 4,5,10,15,16,17,18,20,21,23,33. EXTRA CREDIT 34,36,38.

**Quiz #7**