Week 9

Monday March 27 Class 22:

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

Reading:

Poole, Section 4.3

Homework #21: (due in Class 23)

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

Quiz 7 and BONUS QUIZ Due

Wednesday March 29 Class 23:

Diagonalization. We will learn how to exponentiate a matrix by factoring it as a product of matrices where one of them is diagonal.

Reading:

Poole, Section 4.4

Homework #22: (due in Class 24)

Poole, Section 4.4: 2, 5, 6, 9, 10, 16, 18, 21, 22, 24, 25. EXTRA CREDIT 23.

Friday March 31 Class 24:

Computing Eigenvalues. Eigenvalues are cool. We’ll learn some actual numerical techniques for computing the eigenvalues of a matrix.

Reading:

Poole, Section 4.5

Homework #23: (due in Class 25)

Poole, Section 4.5 : 3, 4, 5, 6, 10, 13, 15, 21, 25, 47, 54. EXTRA CREDIT 45

QUIZ #8