Linear Systems

Monday January 23 *Class 1*:

Introduction to Vectors and Matrices. Definition of **Linear Combination** of vectors.

Reading:

Poole, Section 1.1

Homework #1: (due in *Class 2*)

Poole, *Section 1.1 # 1d, 2d, 3c, 4c, 5a, 6, 9,* **11, 15, 17, 20***; EXTRA CREDIT #14*

Wednesday January 25 *Class 2*:

We will consider the graphical interpretation of algebraic operations on vectors (i.e. vector addition, vector subtraction, scalar multiplication). We will also introduce the concept of projection of a vector onto another vector.

Reading:

Poole, Section 1.2

Homework #2: (due in *Class 3*)

Poole, *Section 1.2 #* **2***,5, 11,* **17***, 19, 25,* **44***, 46, 47,* **52**

Friday January 27 *Class 3*:

We will consider projections in more depth and examine ways to think about algebraically defining lines using vectors.

Reading:

Poole, Section 1.3

Homework #3: (due in *Class 4*)

Poole, *Section 1.2: #31,* **41***, 57,* **62, 63, 64**
QUIZ #1