33A Visan   Homework 2   Due Fri, Jan 20th

- From Section 1.3: 22, 24, 26, 50, and 58.
- From Section 2.1: 44.
- From Section 2.2: 26.

Problem 1. (a) Find the equation for the plane passing through the points

$$\begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix}, \qquad \begin{bmatrix} 1 \\ 1 \\ 1 \end{bmatrix}, \qquad \text{and} \qquad \begin{bmatrix} 1 \\ 0 \\ 1 \end{bmatrix}.$$

(b) Write down a unit normal to this plane.
(c) Find the matrix representing reflection in this plane.

Problem 2. (a) Do exercise 16b in Section 2.2.
(b) Next, find the rotation matrix A that brings the line L to lie along the horizontal axis (i.e., the x-axis).
(c) Find the matrix B representing reflection across the horizontal axis.