

**HOMEWORK 9**  
**DUE WEDNESDAY, 26 MARCH 2008**

MATH 215 - LINEAR ALGEBRA - TOM LAGATTA

- Read pages 161-176 in the textbook (Section 3.3). For this homework, you will need to be familiar with Theorem 3.9 (Properties of Invertible Matrices) and Example 3.26.
- **Section 3.3:** 1, 2, 3, 4, 5, 6, 7, 9, 11, 12, 14, 15, 17, 19, 20, 21, 22, 23
- **Test Corrections:** Redo each problem you missed any credit on. Do this on a separate sheet of paper, and start the problem from the very beginning. Do not use MATLAB for the test corrections.
- **MATLAB:** Using matrix inverses, solve the following system:

$$\begin{aligned} a + b + 6c + 2d &= 4 \\ 7a + 6b + 7c + 9d &= 9 \\ 3a + 2b + 4c + d &= 7 \\ 5a + 6b + \quad + 8d &= 9 \end{aligned}$$

(Hint:  $A\vec{x} = \vec{b}$ .)