Math 23
Differential Equations
Winter
Assignment 2
Due January 23, 2013

Remember:

1. Please show all of your work (writing a list of answers is not sufficient).

2. Please write in clear & legible sentences.

3. Please write your name on your paper and indicate the people you worked with.

4. Please write the section you are in: **Sutton** or **Cho**

5. Please **staple** your pages together.

6. Please write up Parts A and B separately; that is, you will be handing in **two** write-ups.

1. **Part A**

   - Section 2.4: 1, 2, 8, 10 & 22 (a & b);
   - Section 2.5: 3, 7 & 22;
   - Section 2.6: 2, 4 & 13;

2. **Part B**

   I. For each of the following matrices, determine the values of ζ for which the matrix is **NOT** invertible.

   (a) $\begin{pmatrix} 3 - \zeta & 1 \\ 0 & 2 - \zeta \end{pmatrix}$

   (b) $\begin{pmatrix} 1 - \zeta & 1 \\ 2 & 2 - \zeta \end{pmatrix}$

   - Section 3.1: 2, 6, & 12;
   - Section 3.2: 3, 8, 14, 16, 23, 26 & 28;
   - Section 3.3: 4, 5, 7, 10, 12, 33, 36 & 38.