

**Linear Algebra and Differential Equations (550.291)**  
**Homework 5 (Due Thursday, October 27, 2005)**

**General Directions:** You must show all work and document any assumptions to receive full credit. All problems are to be done by hand unless otherwise stated.

Linear Combinations and Independence

1. Edwards & Penney: Problem 4.3.23

Bases and Dimension for Vector Spaces

2. Edwards & Penney: Problem 4.4.2 (Explain your answer completely)
3. Edwards & Penney: Problem 4.4.3 (Explain your answer completely)
4. Edwards & Penney: Problem 4.4.9
5. Edwards & Penney: Problem 4.4.19

Row and Column Spaces

6. Edwards & Penney: Problem 4.5.12
7. Edwards & Penney: Problem 4.5.13
8. Edwards & Penney: Problem 4.5.17