

# Linear Algebra (MATH 3333) Fall 2007 Sections 1/4

## Homework 9

Due: Fri. Oct. 19, start of class

**Instructions:** You may **not** use a calculator (or computer). Make sure to write your name, course and section numbers in the top right corner of your solution set, as well as the assignment number on top.

### Reading

Section 2.2: Examples 2, 3 and 5

Section 4.6

### Conceptual Questions

1. What is a basis?
2. Why did we *define* dimension in terms of basis?

### Written Assignment

18 points

**Section 2.2 (p. 114):** 7 (4 pts)

**Section 4.6 (p. 242–243):** 1, 2, 4(a)(b), 19, 31 (2 pts each, you need not show your work for #1 and #2)

**Section 4.8 (p. 267):** 1, 3, 7, 9 (1 pt each, you need not show your work)

**Bonus 1.** #45, p. 244.

**Bonus 2.** #44, p. 244.