Linear Algebra
C Term, Sections C01-C04
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February 3, 2003

Linear Algebra Assignment 4

DUE DATE: Friday, February 7, 4pm. Submit in class or to MA2071 mail slot in SH108.

N.B. No late assignments will be accepted for credit.

N.B. Keep in mind Professor Martin's rules for completing assignments (reproduced on the back of this sheet).

Please complete the following four problems:

1. **(a)** Find the equation of the plane in $\mathbb{R}^3$ which passes through the points $(2, 0, 0)$, $(1, 0, 2)$ and $(-2, 1, 9)$.

   (b) Find the equation of the plane which is parallel to the plane $\pi : 3x + y - 4z = 7$ and passes through the point $(1, 1, 1)$.

   (c) Find the equation of the plane which is perpendicular to the vector $(2, -1, 1)$ and passes through the point $(0, -3, 1)$.

2. Exercise #16 on page 243.

3. Exercise #18 on page 244.

4. Exercise #T.3 on pages 244. (Be careful!)

PROFESSOR MARTIN'S RULES FOR LINEAR ALGEBRA ASSIGNMENTS:

- Write neatly, using correct English.
- Use **only one side** of each sheet of paper. Ink on the back of the page deteriorates the readability of what is on the front.
- Explain your steps. A correct answer with no explanation will earn a grade of zero.
- Use a staple when you submit more than one sheet and want them all back. There is a stapler for public use in the Mathematical Sciences Department Office (SH108).