MATH 43 Suggested Problems Similar to 2006 Exam 1 October, 2007

1.2 - 9, 36. See also quiz 2.

MATH 43 Suggested Problems to Review October, 2007

1.3 - 14, 23, 24

2.2 - 31, 41. Note: **Instructions** for #31 from Quizzes 5 & 6*.

2.3 - 2, 23

MATH 43 Additional Practice October, 2007

2.2 - 27. Identify free variables. Give a spaning set for solution.

2.2 - 40**. Compare Quiz #5, Problem 2.

MATH 43 5th Quiz* (take-home) due: September 26, 2007

1. Use Gauss-Jordan elimination to solve the [following] system. Include a clearly identified reduced row echelon matrix for the coefficient matrix; and a statement identifying which variables are leading variables and which variables are free variables.

MATH 43 6th Quiz* October 3, 2007

1. Find the solutions of the system of equations with the augmented matrix

$$\left[\begin{array}{ccccc|c} 1 & 0 & 3 & 0 & -2 & 0 \\ 0 & 1 & -2 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 & -2 & 0 \end{array}\right].$$

Identify the free variables and leading variables. Replace the free variables by parameters, then solve for the leading variables in terms of the parameters. Write your solution $\vec{x}$ as a linear combination of a finite set of spanning vectors $\vec{u}_1, \vec{u}_2, \ldots \vec{u}_d$. Give the vectors $\vec{u}_1, \vec{u}_2, \ldots \vec{u}_d$.

**For 2.2 - 40, the system reduces to $\left[\begin{array}{cc|c} 2 & -4 & -6 \\ 0 & 2+2k & 3+3k \end{array}\right]$.