Take-Home Quiz 2 (*Due at 7:00 p.m. on Fri. September 17, 2010*)

Division: **ID#:** **Name:**

Let L, T and C be matrices given below.

$$L = \begin{bmatrix} 0 & 1 & 0 \\ 6 & 2 & 2 \\ 0 & 3 & 4 \end{bmatrix}, \qquad T = \begin{bmatrix} 1 & 1 & 1 \\ 6 & 2 & -2 \\ 9 & -3 & 1 \end{bmatrix}, \qquad C = \left[\begin{array}{ccc|ccc} 1 & 1 & 1 & 1 & 0 & 0 \\ 6 & 2 & -2 & 0 & 1 & 0 \\ 9 & -3 & 1 & 0 & 0 & 1 \end{array}\right].$$

1. Compute the product LT. (Show work!)

2. Find the reduced row echelon form of C.(Show work! Write operations as well in $[i; c], [i, j], [i, j; c]$ form.)

3. Compute $T^{-1}LT$. (Show work!)

Message 欄：(理系以外の人も含め) 高校・大学における数学は何のため？ [HP 掲載不可は明記のこと]