Math 2210Q-004 Applied Linear Algebra
E-Mail Assignments
on the readings in the textbook

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Submit by E-Mail by 7:00 am on the date due (before class)
to dgross@math.uconn.edu.

Due for Tuesday, April 21

Section 5.4 Eigenvectors and Linear Transformations

To read: Reread section 5.3 and Read section 5.4

To Do: Homework from section 5.2.

Be sure sure to understand: Figures 1, 2, 3 and 5 in section 5.4 (look familiar?)

Questions:

1. If $A = PDP^{-1}$ is an $n \times n$ matrix, where D is diagonal, then we can view
$$T : \mathbb{R}^n \longrightarrow \mathbb{R}^n; \vec{x} \mapsto A\vec{x}$$
as a composite of the three transformations determined by P, D and P^{-1}. What do each of these three transformations do?

   Hint: Look at theorem 8 and figure 5.
