

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

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Spring 2009

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

Due for Thursday, April 2

Section 4.7 Change of Basis

To read: Reread section 4.6 and read section 4.7

To Do: The homework from sections 4.5

Be sure sure to understand: Theorem 15 and the figure associated with it; How to compute the change of basis matrix.

Note: Our second exam is a week from this Thursday, on April 9. It will cover all of chapter 3 and sections 1 through 7 of chapter 4. If you haven't already started studying, start now. I'm around most of the time for extra help. Don't wait for the last minute.

Email Subject Line: 2210EA 04/02 YourLastName

Questions:

Let \mathcal{B}, \mathcal{C} and \mathcal{D} be bases of a vector space V .

1. Based on the diagram on page 273 in the text, how are the matrices $P_{\mathcal{C} \leftarrow \mathcal{B}}$ and $P_{\mathcal{B} \leftarrow \mathcal{C}}$ related to each other?
 2. What does the matrix product $P_{\mathcal{D} \leftarrow \mathcal{C}} \cdot P_{\mathcal{C} \leftarrow \mathcal{B}}$ equal?
 3. (Challenge!)
How are the matrices $P_{\mathcal{B}}, P_{\mathcal{C}}$ (from section 4.4 page 249) and $P_{\mathcal{C} \leftarrow \mathcal{B}}$ all related?
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