

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](mailto:dgross@math.uconn.edu).

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Due for Tuesday, March 3

Section 3.3 Cramer's Rule, Volume, and Linear Transformations

To read: Reread Section 3.2 and Read section 3.3

Be sure sure to understand: The definition of the adjoint matrix.

Email Subject Line: 2210EA 03/03 YourLastName

Questions:

1. If the columns of a square matrix  $A$  are interchanged to produce a matrix  $B$ , how are their determinants related?
  2. How can we express the  $i^{\text{th}}$  column of  $A$  as a product of  $A$  with some vector?
  3. What is the area of the parallelogram in  $\mathbb{R}^2$  formed with the 4 points  $(0, 0)$ ,  $(4, 1)$ ,  $(1, 3)$  and  $(5, 4)$ ?
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