

Linear Algebra and its Applications, Spring 2013

Homework 3

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Note 1. This homework is due *8:30 am, October 1, 2013*. Please submit a hard copy into the homework box outside the TAs' lab.

Note 2. "Review exercises" should be found in the textbook (the fourth edition).

1. (15 points) Review exercise 2.1. 10 points for Parts (a) to (d) and 5 points for Part (e). For Part (d), change the problem statement to "The row space of A has a basis that can be computed by reducing A to echelon form. The basis found in this way is unique."
2. (5 points) Review exercise 2.2.
3. (10 points) For review exercise 2.2, find the four fundamental subspaces.
4. (5 points) Review exercise 2.3.
5. (5 points) Review exercise 2.4.
6. (10 points) Review exercise 2.8.
7. (5 points) Review exercise 2.9.
8. (5 points) Review exercise 2.11.
9. (5 points) Review exercise 2.12.
10. (10 points) Review exercise 2.22.
11. (15 points) Review exercise 2.24.
12. (10 points) Review exercise 2.28.