

MAT 532 — HOMEWORK 2

DUE ON MONDAY, FEBRUARY 5

Reading. Skim Chapters 3–4. Review especially the sections below:

- 3.1. Skim.
 - 3.2. Theorem 3.2.1 and definition of norm.
 - 3.3. Definitions and Theorems, esp. Theorem 3.3.3 and the preceding discussion.
 - 3.4. Skip.
 - 3.5. Point-normal form, Example 2.
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- 4.1. pp. 168–169, 173–175, esp. Theorems.
 - 4.2. Skim more carefully, esp. 181–186 and Compositions on p. 190.
 - 4.3. page 198, Example 5, skip eigenstuff for now.

Read sections 5.1 and 5.2 carefully.

Problems. Turn in only **bolded** problems. Show all your work, including tedious row-reductions.

- 3.1. **#9**
 - 3.2. #9bc
 - 3.3. #6ac, 10
 - 3.5. #4
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- 4.1. **#15**
 - 4.2. #3, 4, **17a**
 - 4.3. #1, 5a, 12ac, **15**
 - 4.4. #2, 4
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- 5.1. #9, 10, **17**
 - 5.2. #2bcd, 3ac, 4ade, 6ad, **11ac**, 12