

Last name \_\_\_\_\_

First name \_\_\_\_\_

**LARSON—MATH 511—HOMEWORK WORKSHEET 21**  
**Strang's Lectures—Notes and Questions**

1. Read **Sec. III.1, III.2** of our book.
2. Watch Prof Strang's **Lecture 16**.  
<https://ocw.mit.edu/courses/18-065-matrix-methods-in-data-analysis-signal-processing-and-machine-learning-spring-2018/resources/lecture-16-derivatives-of-inverse-and-singular-values/>
3. Write up *useful notes* for Prof Strang's lecture.
4. Write at least two questions about what you didn't understand. Write these maximally clearly—so that an advanced student (who has had a semester of linear algebra) *not* in our class might understand your question.  
  
Is your question about a definition of a term that he uses? If so, is the term defined in our book? Write out the relevant definition and an example.
5. Your **Notes and Questions** can be handwritten, done in L<sup>A</sup>T<sub>E</sub>X, WORD, etc, but you need to make a **pdf** of your final product (somehow).
6. Then email me your notes with an email subject that mentions the class and assignment (for instance, "MATH 511 h21 attached").

**More**

All of Prof Strang's course lectures are here:

<https://ocw.mit.edu/courses/18-065-matrix-methods-in-data-analysis-signal-processing-and-machine-learning-spring-2018/video/galleries/video-lectures/>