

MATH 2270-002 Final Practice Problems

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This document is designed to prepare you for the final exam. To prepare for the final exam—which will be cumulative—below is a list of recommendations. This document is for you to practice for the final exam and there is nothing to turn in.

1. Study the solutions of the three midterms. The keys of each midterm is available on the associated assignment page on Canvas.
2. Make sure that you know the definitions of the concepts mentioned in the midterms and answer similar questions with different numbers/matrices.
3. Make sure you can compute the spectral decomposition of a symmetric matrix and the singular value decomposition of an arbitrary matrix.
4. Make sure you can write the hyperlink matrix of a network and draw the network of a hyperlink matrix.

5. At the end of each chapter in the textbook there are supplementary exercises. Among these exercises there are true/false questions. At the end of the book the answers to these exercises too are provided. Go through as many such true/false questions as possible, and try to come up with examples or counterexamples. **In the exam there may or may not be true/false questions.**

6. Study the following problems from problem sets:

PSET 1: 2,8

PSET 2: 1,7

PSET 3: 7,8

PSET 4: 3

PSET 5: 1

PSET 6: 5,6,7

PSET 7: 2

PSET 8: 1,5,6

PSET 9: 1,2

PSET 10: 1,2,3,5

PSET 11: 2,3,5