

Fifth Homework Assignment for Math 232 (D200)

Due: Friday, October 23rd.

All section references are to the Lay text.

Problems to hand in:

Section 2.1 problems 6, 12, 18, 20

Section 2.2 problems 2, 14, 20, 32

Section 2.3 problem 6

Verify that for arbitrary 2×2 matrices $A = \begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix}$ and $B = \begin{bmatrix} b_{11} & b_{12} \\ b_{21} & b_{22} \end{bmatrix}$, we have $(AB)^t = B^t A^t$.

Some other problems you might try:

The true-false questions in this book are still a good way to review the material. I recommend Section 2.1 problems 15, 16, and Section 2.2 problems 9, 10.

Make sure you can reliably multiply and invert small matrices.

Reading for this week:

For Wednesday, Sections 2.6 and 2.7

For Friday, Section 2.8

(Optional) Section 2.4 points out that it can be helpful to view some matrices as consisting of “blocks”, that is to say, smaller matrices. Section 2.5 discusses LU-factorizations, an essential computational technique in linear algebra.