
- Inner products, norms, basic properties, Cauchy-Schwarz
  - Suggested review: homework #6 problems 2, 3, and 5, homework #7 problem 3
  - Suggested reading: lecture notes 3.1.
- Orthogonal and orthonormal sets, Gram-Schmidt, orthogonal complements and projection
  - Suggested review: homework #6 problems 4 and 6, homework #7 problems 2a-h, 3, and 4.
  - Suggested reading: lecture notes 3.2.
- Inner products and linear transformations, adjoints
  - Suggested review: homework #7 problem 7, homework #8 problem 8
  - Suggested reading: lecture notes 3.4.
- Eigenvalues and eigenvectors, eigenspaces, characteristic polynomial
  - Suggested review: homework #8 problems 2, 3, 4, 5, 6, and 7.
  - Suggested reading: lecture notes 4.1.
- Similarity and diagonalization
  - Suggested review: homework #8 problems 2(iii), 3(ii), 5(d), 6(c), homework 9 problem 6.
  - Suggested reading: lecture notes 4.2.
- Generalized eigenvectors and the Jordan canonical form
  - Suggested review: homework #9 problems 3, 4, and 7.
  - Suggested reading: lecture notes 4.3.
- Cayley-Hamilton, matrix powers
  - Suggested review: homework #9 problems 2 and 5.
  - Suggested reading: lecture notes 4.4.1 + 4.4.2.
- Hermitian operators and the spectral theorem
  - Suggested review: homework #7 problem 7, homework #9 problem 8.
  - Suggested reading: lecture notes 4.4.5.
- True/false and miscellaneous tidbits
  - Suggested review: homeworks #6-#9 problem 1.
