

**Homework from:**  
**Andrilli & Hecker, *Elementary Linear Algebra*, 3rd edition**

**Assignment 1.** Week of Jun 4 - Jun 5

- 1.1:** 10, 16, 23d, 24 (Fundamental Operations with Vectors)  
**1.2:** 1a, 3, 9, 15, 23 (The Dot Product)

**Assignment 2.** Week of Jun 8 - Jun 12

- 1.3:** 2, 3, 6, 9, 11, 12, 14, 21 (An Introduction to Proof Techniques)  
**1.4:** 1(a, e, i, m), 3, 6, 7 (Fundamental Operations with Matrices)  
**1.5:** 1 (column 1), 4, 10, 14a, 19 (Matrix Multiplication)  
**2.1:** 1(b, c, d, e, f), 3, 5, 10 (Solving Linear Systems Using Gaussian Elimination)  
**2.2:** 1, 2(d, e), 11, 12, 13 (Gauss-Jordan Row Reduction and Reduced Row Echelon Form)

**Assignment 3.** Week of Jun 15 - Jun 19

- 2.3:** 4, 5(b,d,f), 6b, 9ab, 10b, 12, 17 (Equivalent Systems, Rank, and Row Space)  
**2.4:** 2(a,c), 3c, 4cd, 13, 16, 18 (Inverse of Matrices)

**Assignment 4.** Week of Jun 22 - Jun 26

- 3.1:** 1(b,d,f,h), 2b (Introduction to Determinants)  
**3.2:** 1, 2(d,f), 7 (Determinants and Row Reduction)  
**3.3:** 3(a,e), 5, 8 (Further Properties of the Determinant)  
**3.4:** 3(b,d,f), 4(a,b), 10, 13 (Eigenvalues and Diagonalization)  
**4.1:** 3, 4, 6, 9, 10, 14a (Introduction to Vector Spaces)

**Assignment 5.** Week of Jun 29 - Jul 3 (**This set is due Tue Jul 7**)

- 4.2:** 2(b,d,f), 6, 8, 10, 18 (Subspaces)  
**4.3:** 3b, 6, 7, 8, 9, 12, 13, 23 (Span)  
**4.4:** 1, 2(c,d,f), 4(b,d,f), 8, 15, 17, 18, 22 (Linear Independence)  
**4.5:** 1, 3, 4, 9, 14, 23, 25 (Basis and Dimension)

**Assignment 6.** Week of Jul 6 - Jul 9 (**This set will not be collected**)

- 4.6:** 1(b,c), 5(b,d,f), 8b, 11a, 13 (Constructing Special Bases)  
**4.7:** 1(b,f) (Coordinatization)  
**5.1:** 1(c,e,g,i,k), 4, 16, 29, 30, 31, 36 (Introduction to Linear Transformations)  
**5.2:** 2(a,b) (The Matrix of a Linear Transformation)