

Contents

... Applications	48
... Exercises	49
... Examples and Applications	50
... Determinants and Matrices	51
... Examples and Applications	52
... Inverse Matrices	53
... Subspaces	54
... Linear Independence, Basis	55
... Inner-Product Spaces	56
... Direct Sums and Orthogonal Complementary Subspaces	57
... Applications	58
... Exercises	59
Chapter 1. Vectors and Matrices	
1.1 Introduction	1
1.2 Comparison of Matrices	7
1.3 Elementary Matrix Algebra	8
1.4 Inverse of a Matrix	21
1.5 Further Examples and Applications	24
1.6 Exercises.....	52
Chapter 2. Vector Spaces and Inner-Product Spaces.....	
2.1 Introduction	57
2.2 Subspaces	62
2.3 Linear Independence, Basis.....	70
2.4 Inner-Product Spaces.....	85
2.5 Direct Sums and Orthogonal Complementary Subspaces	105
2.6 Applications.....	119
2.7 Exercises.....	127
Chapter 3. Systems of Linear Equations and Inverses of Matrices	
3.1 Introduction	133
3.2 Existence and Uniqueness of a Solution.....	135
3.3 Systems of Homogeneous Linear Equations	142
3.4 Systems of Inhomogeneous Linear Equations.....	149
3.5 Rank of Matrices	155
3.6 Matrix Equations and Inverses of Matrices	157
3.7 The Elimination Method.....	165
3.8 Applications.....	188
3.9 Exercises.....	200
Chapter 4. Determinants	
4.1 Introduction	207
4.2 Properties of Determinants	215

4.3 Cofactors and Expansion by Cofactors	225
4.4 Determinants and Systems of Linear Equations	232
4.5 Further Examples and Applications	238
4.6 Exercises.....	245
Chapter 5. Linear Mappings and Matrices	251
5.1 Introduction	251
5.2 Vector Coordinates	251
5.3 Linear Mappings.....	254
5.4 The Vector Space of Linear Mappings.....	271
5.5 Multiplication of Linear Mappings, and Inverses	273
5.6 Matrix Representations of Linear Mappings	284
5.7 Coordinates and Matrix Representation in a New Basis	293
5.8 Applications.....	299
5.9 Exercises.....	306
Chapter 6. Eigenvalues, Invariant Subspaces, Canonical Forms.....	313
6.1 Introduction	313
6.2 Basic Concepts	313
6.3 Matrix Polynomials	325
6.4 The Construction of Invariant Subspaces	336
6.5 Diagonal and Triangular Forms.....	341
6.6 The Jordan Canonical Form	351
6.7 Complexification	360
6.8 Applications.....	361
6.9 Exercises.....	378
Chapter 7. Special Matrices.....	383
7.1 Introduction	383
7.2 Diagonal, Tridiagonal, and Triangular Matrices	383
7.3 Idempotent and Nilpotent Matrices	393
7.4 Matrices in Inner Product Spaces	396
7.5 Definite Matrices	410
7.6 Nonnegative Matrices.....	418

7.7 Applications.....	Chapter 7.....	437
7.8 Exercises.....		450

Vectors and Matrices

Chapter 8. Elements of Matrix Analysis.....	455
8.1 Introduction	455
8.2 Vector Norms	455
8.3 Matrix Norms	461
8.4 Applications.....	474
8.5 Exercises.....	491

organized way or a rectangular array. For example, if the prices of five items are p_1, p_2, \dots, p_5 , then such an array is given by

References	495
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array has the specialty that it consists of only one row, therefore it is often called a *row vector*. Consider again the same small firm and assume that for the next week the management considers two alternative production plans. Let x_1, x_2, x_3 and y_1, y_2, y_3 denote the alternative production volumes. The data can be conveniently summarized in a rectangular array form:

$$\begin{pmatrix} x_1 \\ x_2 \\ x_3 \end{pmatrix}$$

can be constructed, which consists of only one column. Therefore it is sometimes called a *column vector*. Consider again the same small firm and assume that for the next week the management considers two alternative production plans. Let x_1, x_2, x_3 and y_1, y_2, y_3 denote the alternative production volumes. The data can be conveniently summarized in a rectangular array form:

$$\begin{pmatrix} x_1 & y_1 \\ x_2 & y_2 \\ x_3 & y_3 \end{pmatrix} \quad (1.1)$$

where the rows correspond to the different products, and the columns correspond to the alternative plans. This array consists of 3 rows and 2 columns, therefore it is usually called a 3×2 matrix (pronounced "three by