

TABLE OF CONTENTS

Quantitative Methods

Chapter 0: Review of Basic Concepts

- 0.1 Business Applications: Simple Interest and Compound Interest
- 0.2 Business Applications: Buying a Home or a Car
- 0.3 Slopes of Parallel and Perpendicular Lines
- 0.4 Linear Functions in Numerical (Table) Form
- 0.5 Techniques in Graphing and Properties of Functions

Chapter 1: Algebraic Expressions

- 1.1 Simplifying Expressions
- 1.2 Exponents
- 1.3 Polynomials
- 1.4 Multiplication of Polynomials
- 1.5 Integer Exponents
- 1.6 The Quotient of Two Polynomials

Chapter 2: Sets

- 2.1 Sets: Basic Terms and Set Notations
- 2.2 Set Operations
- 2.3 Sets and Diagrams
- 2.4 Permutation and Combination

Chapter 3: Mathematics for the Consumer and Percent

- 3.1 Understanding Percent
- 3.2 Solving Percent Problems
- 3.3 Business Applications (I): Markup, Discount, Sales Tax, Profit, Commission and Tipping

Chapter 4: Functions

- 4.1 Functions
- 4.2 Domain and Range of a Function
- 4.3 Graphical Representation of a Function
- 4.4 Equations of Lines
- 4.5 Systems of Linear Equations in Two Variables
- 4.6 Quadratic Functions
- 4.7 Application of Linear Functions to Business and Economics
- 4.8 Application of Quadratic Functions to Business and Economics

Chapter 5: Exponential and Logarithmic Functions

TABLE OF CONTENTS

- 5.1 Exponential Functions
- 5.2 The Meaning of Logarithms
- 5.3 Logarithms
- 5.4 Solving Exponential Equations
- 5.5 Solving Logarithmic Equations
- 5.6 Applications

Chapter 6: Mathematics of Finance

- 6.1 Simple Interest and Discount Note
- 6.2 Compound Interest
- 6.3 Annuities
- 6.4 Present Value of an Annuity and Amortization
- 6.5 Analysis of Financial Formulas

Chapter 7: Systems of Linear Equations, Matrices and Determinants

- 7.1 Systems of Linear Equations in More than Two Variables
- 7.2 Matrix Algebra
- 7.3 Determinants

Chapter 8: Linear Programming

- 8.1 Solving Systems of Linear Inequalities
- 8.2 Linear Programming

Chapter 9: Introduction to Statistics and Organization of Data

- 9.1 Overview of Statistics
- 9.2 Statistical Data and Design of Experiments
- 9.3 Sampling Methods
- 9.4 Frequency Distribution of Quantitative Data
- 9.5 Frequency Distribution of Qualitative Data
- 9.6 Alternate Forms of Frequency Distribution
- 9.7 Frequency Polygons and Curves
- 9.8 Graphical Presentation of Qualitative Data

Chapter 10: Measures of Central Tendency and Spread

- 10.1 Measures of Central Tendency (Raw Data)
- 10.2 Measures of Central Tendency (Grouped Data)
- 10.3 Measures of Variation: Raw Data
- 10.4 Measures of Variation (Grouped Data)
- 10.5 Quartiles and Percentiles (Raw Data)
- 10.6 Quartiles and Percentiles (Grouped Data)

Chapter 11: Probability

- 11.1 Introduction to Probability

TABLE OF CONTENTS

- 11.2 Addition Rule
- 11.3 Multiplication Rule
- 11.4 Counting Techniques (Combinatorics)

Chapter 12: Discrete Probability Distributions

- 12.1 Discrete Probability Distributions
- 12.2 Presentation of a Discrete Probability Distribution
- 12.3 Binomial Distribution
- 12.4 Graphical Presentation of the Binomial Distribution
- 12.5 Poisson Distribution
- 12.6 Other Discrete Probability Distributions
- 12.7 Continuous Distribution

Chapter 13: Normal Probability Distribution

- 13.1 Normal Distribution
- 13.2 Areas under the Standard Normal Curve
- 13.3 Finding Normal Probability
- 13.4 Applications of The Normal Distribution
- 13.5 Normal Approximation to The Binomial Distribution