1. Record Nr. UNIORUON00446482

Autore	Nigeria : Survey Department
Titolo	Map of Nigeria : Rainfall / Drawn and reproduced by Survey Dept
Pubbl/distr/stampa	Lagos, : Survey Dept., 1949
Edizione	[Scale 1:3 000 000]
Descrizione fisica	1 c. : col. ; 38 x 47 cm. su foglio 45 x 52 cm
Classificazione	CARTE AFRICA
Soggetti	NIGERIA - Carte geografiche - 1930- PRECIPITAZIONI - Nigeria - 1949
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9911007194403321

Autore	Farlow Stanley J
Titolo	An Introduction to Differential Equations and Their Applications
Pubbl/distr/stampa	Newburyport, : Dover Publications, 2012
ISBN	9780486135137 0486135136 9781621985747 1621985741
Edizione	[1st ed.]
Descrizione fisica	1 online resource (1408 p.)
Collana	Dover Books on Mathematics
Disciplina	515/.35
Soggetti	Differential equations Mathematics Physical Sciences & Mathematics Calculus
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.

Nota di contenuto

Cover; Title Page; Copyright Page; Dedication; Contents; Preface; Chapter 1: Introduction to Differential Equations; Prologue; 1.1 Basic Definitions and Concepts; 1.2 Some Basic Theory; Chapter 2: First-Order Differential Equations; 2.1 First-Order Linear Equations; 2.2 Separable Equations; 2.3 Growth and Decay Phenomena; 2.4 Mixing Phenomena; 2.5 Cooling and Heating Phenomena; 2.6 More Applications; 2.7 The Direction Field and Euler's Method; 2.8 Higher-Order Numerical Methods; Chapter 3: Second-Order Linear Equations; 3.1 Introduction to Second-Order Linear Equations
3.2 Fundamental Solutions of the Homogeneous Equation3.3 Reduction of Order; 3.4 Homogeneous Equations with Constant Coefficients: Real Roots; 3.5 Homogeneous Equations with Constant Coefficients: Complex Roots; 3.6 Nonhomogeneous Equations; 3.7 Solving Nonhomogeneous Equations: Method of Undetermined Coefficients; 3.8 Solving Nonhomogeneous Equations: Method of Variation of Parameters; 3.9 Mechanical Systems and Simple Harmonic Motion; 3.10 Unforced Damped Vibrations; 3.11 Forced Vibrations; 3.12 Introduction to Higher-Order Equations (Optional); Chapter 4: Series Solutions
4.1 Introduction: A Review of Power Series4.2 Power Series Expansions about Ordinary Points: Part I; 4.3 Power Series Expansions about Ordinary Points: Part II; 4.4 Series Solutions about Singular Points: The Method of Frobenius; 4.5 Bessel Functions; Chapter 5: The Laplace Transform; 5.1 Definition of the Laplace Transform; 5.2 Properties of the Laplace Transform; 5.3 The Inverse Laplace Transform; 5.4 Initial-Value Problems; 5.5 Step Functions and Delayed Functions; 5.6 Differential Equations with Discontinuous Forcing Functions; 5.7 Impulse Forcing Functions; 5.8 The Convolution Integral
Chapter 6: Systems of Differential Equations6.1 Introduction to Linear Systems: The Method of Elimination; 6.2 Review of Matrices; 6.3 Basic Theory of First-Order Linear Systems; 6.4 Homogeneous Linear Systems with Real Eigenvalues; 6.5 Homogeneous Linear Systems with Complex Eigenvalues; 6.6 Nonhomogeneous Linear Systems; 6.7 Nonhomogeneous Linear Systems: Laplace Transform (Optional); 6.8 Applications of Linear Systems; 6.9 Numerical Solution of Systems of Differential Equations; Chapter 7: Difference Equations; 7.1 Introduction to Difference Equations; 7.2 Homogeneous Equations
7.3 Nonhomogeneous Equations7.4 Applications of Difference Equations; 7.5 The Logistic Equation and the Path to Chaos; 7.6 Iterative Systems: Julia Sets and the Mandelbrot Set (Optional); Chapter 8: Nonlinear Differential Equations and Chaos; 8.1 Phase Plane Analysis of Autonomous Systems; 8.2 Equilibrium Points and Stability for Linear Systems; 8.3 Stability: Almost Linear Systems; 8.4 Chaos, Poincare Sections and Strange Attractors; Chapter 9: Partial Differential Equations; 9.1 Fourier Series; 9.2 Fourier Sine and Cosine Series; 9.3 Introduction to Partial Differential Equations
9.4 The Vibrating String: Separation of Variables

Sommario/riassunto

Intended for use in a beginning one-semester course in differential equations, this text is designed for students of pure and applied mathematics with a working knowledge of algebra, trigonometry, and elementary calculus. Its mathematical rigor is balanced by complete but simple explanations that appeal to readers' physical and geometric intuition.Starting with an introduction to differential equations, the text proceeds to examinations of first- and second-order differential equations, series solutions, the Laplace transform, systems of differential equations, difference equations, nonlinear