

1. Record Nr.	UNISA996391814503316
Titolo	Reasons humbly offer'd for a law to enact the castration, or gelding, of Popish ecclesiastics [[electronic resource]] : as the best way to prevent the growth of popery in England
Pubbl/distr/stampa	London, : Printed and are to be sold by A. Baldwin ..., 1700
Descrizione fisica	16 p
Altri autori (Persone)	DefoeDaniel <1661?-1731.>
Soggetti	Anti-Catholicism - England
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	<p>Attributed to Daniel Defoe. Cf. Moore Smith, G.C. An unrecognized work of Defoe's? In the Review of English studies, v. 5, no. 17, p. 64-66.</p> <p>Not accepted by John Robert Moore as Defoe's; not listed by Boston Pub. Lib. cat. of The Defoe Coll. Cf. NUC pre-1956.</p> <p>Impefect: print show-through with some loss of text.</p> <p>Reproduction of original in: National Library of Scotland.</p>
Sommario/riassunto	eebo-0097

2. Record Nr.	UNINA9910150233903321
Autore	Croft Anthony
Titolo	Engineering Mathematics: A Foundation for Electronic, Electrical, Communications and Systems Engineers
Pubbl/distr/stampa	[Place of publication not identified], : Pearson Education Limited, 2012
ISBN	1-283-68373-3 0-273-71987-4
Edizione	[4th ed.]
Descrizione fisica	1 online resource (983 pages)
Disciplina	510.2462
Soggetti	Engineering & Applied Sciences Applied Mathematics Libros electronicos.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Cover -- Engineering Mathematics -- Contents -- Preface -- Acknowledgements -- Review of algebraic techniques -- Introduction -- Laws of indices -- Number bases -- Polynomial equations -- Algebraic fractions -- Solution of inequalities -- Partial fractions -- Summation notation -- Review exercises 1 -- Engineering functions -- Introduction -- Numbers and intervals -- Basic concepts of functions -- Review of some common engineering functions and techniques -- Review exercises 2 -- The trigonometric functions -- Introduction -- Degrees and radians -- The trigonometric ratios -- The sine, cosine and tangent functions -- The sinc x function -- Trigonometric identities -- Modelling waves using sin t and cos t -- Trigonometric equations -- Review exercises 3 -- Coordinate systems -- Introduction -- Cartesian coordinate system - two dimensions -- Cartesian coordinate system - three dimensions -- Polar coordinates -- Some simple polar curves -- Cylindrical polar coordinates -- Spherical polar coordinates -- Review exercises 4 -- Discrete mathematics -- Introduction -- Set theory -- Logic -- Boolean algebra -- Review exercises 5 -- Sequences and series -- Introduction -- Sequences -- Series -- The binomial theorem -- Power series -- Sequences arising from the iterative solution of non-linear equations -- Review exercises 6 -- Vectors -- Introduction -- Vectors and scalars: basic concepts --

Cartesian components -- Scalar fields and vector fields -- The scalar product -- The vector product -- Vectors of n dimensions -- Review exercises 7 -- Matrix algebra -- Introduction -- Basic definitions -- Addition, subtraction and multiplication -- Robot coordinate frames -- Some special matrices -- The inverse of a 2×2 matrix -- Determinants -- The inverse of a 3×3 matrix -- Application to the solution of simultaneous equations -- Gaussian elimination. Eigenvalues and eigenvectors -- Analysis of electrical networks -- Iterative techniques for the solution of simultaneous equations -- Computer solutions of matrix problems -- Review exercises 8 -- Complex numbers -- Introduction -- Complex numbers -- Operations with complex numbers -- Graphical representation of complex numbers -- Polar form of a complex number -- Vectors and complex numbers -- The exponential form of a complex number -- Phasors -- De Moivre's theorem -- Loci and regions of the complex plane -- Review exercises 9 -- Differentiation -- Introduction -- Graphical approach to differentiation -- Limits and continuity -- Rate of change at a specific point -- Rate of change at a general point -- Existence of derivatives -- Common derivatives -- Differentiation as a linear operator -- Review exercises 10 -- Techniques of differentiation -- Introduction -- Rules of differentiation -- Parametric, implicit and logarithmic differentiation -- Higher derivatives -- Review exercises 11 -- Applications of differentiation -- Introduction -- Maximum points and minimum points -- Points of inflexion -- The Newton--Raphson method for solving equations -- Differentiation of vectors -- Review exercises 12 -- Integration -- Introduction -- Elementary integration -- Definite and indefinite integrals -- Review exercises 13 -- Techniques of integration -- Introduction -- Integration by parts -- Integration by substitution -- Integration using partial fractions -- Review exercises 14 -- Applications of integration -- Introduction -- Average value of a function -- Root mean square value of a function -- Review exercises 15 -- Further topics in integration -- Introduction -- Orthogonal functions -- Improper integrals -- Integral properties of the delta function -- Integration of piecewise continuous functions -- Integration of vectors -- Review exercises 16. Numerical integration -- Introduction -- Trapezium rule -- Simpson's rule -- Review exercises 17 -- Taylor polynomials, Taylor series and Maclaurin series -- Introduction -- Linearization using first-order Taylor polynomials -- Second-order Taylor polynomials -- Taylor polynomials of the n th order -- Taylor's formula and the remainder term -- Taylor and Maclaurin series -- Review exercises 18 -- Ordinary differential equations I -- Introduction -- Basic definitions -- First-order equations: simple equations and separation of variables -- First-order linear equations: use of an integrating factor -- Second-order linear equations -- Review exercises 19 -- Ordinary differential equations II -- Introduction -- Analogue simulation -- Higher order equations -- State-space models -- Numerical methods -- Euler's method -- Improved Euler method -- Runge-Kutta method of order 4 -- Review exercises 20 -- The Laplace transform -- Introduction -- Definition of the Laplace transform -- Laplace transforms of some common functions -- Properties of the Laplace transform -- Laplace transform of derivatives and integrals -- Inverse Laplace transforms -- Using partial fractions to find the inverse Laplace transform -- Finding the inverse Laplace transform using complex numbers -- The convolution theorem -- Solving linear constant coefficient differential equations using the Laplace transform -- Transfer functions -- Poles, zeros and the s plane -- Laplace transforms of some special functions -- Review exercises 21 -- Difference equations and the z Transform --

Introduction -- Basic definitions -- Rewriting difference equations --
 Block diagram representation of difference equations -- Design of a
 discrete-time controller -- Numerical solution of difference equations
 -- Definition of the z transform -- Sampling a continuous signal.
 The relationship between the z transform and the Laplace transform --
 Properties of the z transform -- Inversion of z transform -- The z
 transform and difference equations -- Review exercises 22 -- Fourier
 series -- Introduction -- Periodic waveforms -- Odd and even
 functions -- Orthogonality relations and other useful identities --
 Fourier series -- Half-range series -- Parseval's theorem -- Complex
 notation -- Frequency response of a linear system -- Review exercises
 23 -- The Fourier transform -- Introduction -- The Fourier transform -
 definitions -- Some properties of the Fourier transform -- Spectra --
 The t duality principle -- Fourier transforms of some special
 functions -- The relationship between the Fourier transform and the
 Laplace transform -- Convolution and correlation -- The discrete
 Fourier transform -- Derivation of the d.f.t. -- Using the d.f.t. to
 estimate a Fourier transform -- Matrix representation of the d.f.t. --
 Some properties of the d.f.t. -- The discrete cosine transform --
 Discrete convolution and correlation -- Review exercises 24 --
 Functions of several variables -- Introduction -- Functions of more
 than one variable -- Partial derivatives -- Higher order derivatives --
 Partial differential equations -- Taylor polynomials and Taylor series in
 two variables -- Maximum and minimum points of a function of two
 variables -- Review exercises 25 -- Vector calculus -- Introduction --
 Partial differentiation of vectors -- The gradient of a scalar field -- The
 divergence of a vector field -- The curl of a vector field -- Combining
 the operators grad, div and curl -- Vector calculus and
 electromagnetism -- Review exercises 26 -- Line integrals and multiple
 integrals -- Introduction -- Line integrals -- Evaluation of line integrals
 in two dimensions -- Evaluation of line integrals in three dimensions.
 Conservative fields and potential functions -- Double and triple
 integrals -- Some simple volume and surface integrals -- The
 divergence theorem and Stokes' theorem -- Maxwell's equations in
 integral form -- Review exercises 27 -- Probability -- Introduction --
 Introducing probability -- Mutually exclusive events: the addition law
 of probability -- Complementary events -- Concepts from
 communication theory -- Conditional probability: the multiplication law
 -- Independent events -- Review exercises 28 -- Statistics and
 probability distributions -- Introduction -- Random variables --
 Probability distributions - discrete variable -- Probability density
 functions - continuous variable -- Mean value -- Standard deviation --
 Expected value of a random variable -- Standard deviation of a random
 variable -- Permutations and combinations -- The binomial
 distribution -- The Poisson distribution -- The uniform distribution --
 The exponential distribution -- The normal distribution -- Reliability
 engineering -- Review exercises 29 -- Appendix I Representing a
 continuous function and a sequence as a sum of weighted impulses --
 Appendix II The greek alphabet -- Appendix III SI units and prefixes --
 Appendix IV The binomial expansion of $(nN/n)n$ -- Index.

Sommario/riassunto

Engineering Mathematics is the leading undergraduate textbook for
 Level 1 and 2 mathematics courses for electrical and electronic
 engineering, systems and communications engineering students. It
 includes a basic mathematics review, along with all the relevant maths
 topics required for these engineering degrees. Features Students see
 the application of the maths they are learning to their engineering
 degree through the book's applications-focussed introduction to
 engineering mathematics, that integrates the two disciplines Provides

the foundation and advanced mathematical techniques most appropriate to students of electrical, electronic, systems and communications engineering, including: algebra, trigonometry and calculus, as well as set theory, sequences and series, Boolean algebra, logic and difference equations. Integral transform methods, including the Laplace, z and Fourier transforms are fully covered. Students learn and test their understanding of mathematical theory and the application to engineering with a huge number of examples and exercises with solutions. New to this edition New Engineering Example showcase feature, covering an extensive range of modern applications, including music technology, electric vehicles, offshore wind power and PWM solar chargers. New mathematical sections on number bases, logs and indices, summation notation, the sinc x function, waves, polar curves and the discrete cosine transform. New exercises and answers.
