26 01 CALCULUS II Spring 1997 Irren Wong ext: Thomas & Finney, Calculus, 9th ed. Quite satisfactory. This is the .rst year we've used it, so we should stick with it for a while. napter 6 Transcendental Functions (12 classes) Inverse functions and their derivatives 1 2 Natural logarithms 3 The exponential function 4 a^x and log x to base a 5 Growth and decay 6 L'Hopital's rule 7 Relative rates of growth 8 Inverse trigonometric functions 9 Derivatives of inverse trigonometric functions; integrals 10 Hyperbolic functions 11 First order differential equations apter 7..Techniques of Integration (6 classes) 1 Basic integration formulas 2 Integration by parts 3 Partial fractions 4 Trigonometric substitutions 6 Improper integrals lapter 8 Infinite Series (14 classes) Limits of sequences of numbers 1 Theorems for calculating limits of sequences 2 Infinite series 3 4 The integral test for series of nonnegative terms 5 Comparison tests for series of nonnegative terms 6 The ratio and root tests for series of nonnegative terms 7 Alternating series, absolute and conditional convergence 8 Power series 9 Taylor and Maclaurin series 10 Convergence of Taylor series; error estimates 11 Applications of power series apter 9. Conic Sections, Parametrized Curves, and Polar Coordinates i classes) 1 Conic sections and quadratic equations Classifying conic sections by eccentricity 2 4 Parametrizations of plane curves 5 Calculus with parametrized curves 6 Polar coordinates 8 Polar equations for conic sections 9 Integration in polar coordinates