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Note generali	Co-published with Cognella Academic Publishing. Includes index.
Nota di contenuto	<p>1. Approximation of arbitrary functions using Taylor polynomials -- Taylor polynomials based at 0 -- Taylor polynomials based at an arbitrary point --</p> <p>2. Error in approximation using Taylor polynomials -- The error in the approximation by a Taylor polynomial -- The limit as the order of Taylor polynomial increases --</p> <p>3. Introduction to the infinite series --</p> <p>4. Tests for absolute convergence -- The monotone convergence principle and absolute -- Convergence -- The ratio test -- The root test -- The proofs of the ratio test and the root test --</p> <p>5. An introduction to power series -- The definitions -- Convergence properties of a power series -- Differentiation of functions defined by power series --</p> <p>6. Using termwise integration, multiplication and division to determine Taylor series -- Termwise integration of power series -- Arithmetic operations on Taylor series -- The binomial series --</p> <p>7. Testing for absolute convergence with the integral and comparison tests -- The integral test -- Error estimates related to the integral test -- Comparison tests --</p> <p>8. Using conditional convergence to determine alternating series -- Alternating series --</p>

9. An introduction to the Fourier series -- Fourier series of  $2\pi$ -  
periodic functions -- Fourier series when the period is different from  $2$   
 $\pi$  --  
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