

Chapter headings are: 1. Revision. 2. Limits, convergency and divergency of series, exponential and hyperbolic functions, complex numbers. 3. Partial fractions and summation of series. 4. Differentiation. 5. Integration. 6. Expansion of functions in power series, maxima and minima, points of inflexion. 7. Tangents, normals, curvature, partial differentiation, etc. 8. Determinants. 9. Plane co-ordinate geometry--the straight line, circle, and parabola. 10. Conic sections--the ellipse and hyperbola. 11. Area under a curve, volume of revolution, etc. 12. First-order differential equations. 13. Second-order and partial differential equations. 14. Spherical trigonometry. 15. Moments of inertia and damped simple harmonic motion. 16. Numerical solution of equations. 17. Statistics. 18. Relaxation Methods. 19. Operational calculus--the Laplace transformation.

The general treatment is classical, and vector methods are not used. The book is well printed and bound.

A. Goldrich, McGill University

Daniel D. McCracken A Guide to Fortran Programming.  
John Wiley and Sons, New York - London, 1961. viii + 88 pages.  
\$2.25.

The Fortran algebraic programming language is used for computers of more than one manufacturer, and despite its inherent defects is likely to be in use for some time, through simple inertia. There is generally no shortage of Fortran manuals for a particular machine, but these are designed as reference manuals (although a machine could not understand some of them). A text designed for teaching is therefore welcome. The author of this text takes the reader gently through the construction of simple statements, leaving the more involved constructions for later chapters.

The book describes the full Fortran language which is available only on some large machines, but adds a short appendix indicating the limitations applicable to each particular machine. The student should not place full reliance upon the accuracy of the appendix but should study the text in conjunction with the reference manual for his own machine.

There is an adequate set of problems at the end of each chapter and the last chapter is a set of eight case studies, illustrating the flexibility of the language. This is a useful text for teaching the Fortran language.

J. E. L. Peck, Calgary