

MR1756319 (2001h:26011) 26A39

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★**Integral: an easy approach after Kurzweil and Henstock.**

(English. English summary)

Australian Mathematical Society Lecture Series, 14.

Cambridge University Press, Cambridge, 2000. xii+311 pp. \$39.95.

ISBN 0-521-77968-5

A good introduction to the general subject and to the Riemann integral begins the book. Mawhin found the relevance of Cousin's lemma in integration, while in Burkill integration S. Saks [Fundamenta **10** (1927), 211–224; JFM 53.0233.01] found a useful lemma. Henstock easily transformed it to the Saks-Henstock lemma of the gauge integral, that if F is the integral of f , $\Delta f - F$ is of variation zero. Thus F is zero for all n -dimensional intervals if and only if f is of variation zero. Examples of the use of the second mean value theorem are given, with differentiation of integrals, the McShane integral, the strong Luzin condition, followed by n -dimensional theory, the Fubini theorem, and line integrals, rounding off a large collection of theorems and applications, with 48 references to various papers.

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