that the book is a valuable addition to the literature both for mathematical logicians because of the systematic and exhaustive account of interpretation in weak systems of arithmetic, and for philosophers of mathematics for the way in which conclusions compatible with strict finitism are deduced from assumptions based purely on a formalist viewpoint.

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Commutative rings with zero divisors, by James A. Huckaba. Marcel Dekker, New York and Basel, 1989, x+216 pp., $79.75. ISBN 0-8247-7844-8

This excellent monograph on the titled subject covers a huge amount of research over the past thirty years. The author manages in just over 200 pages (not densely printed—more about this later) to include works from over 200 papers. The Index of Main Results lists 120 theorems, and the remarkably complete end-of-chapter notes tell where each and every one comes from! The work is estimably enriched by more than 20 mostly difficult examples (and counterexamples) worked out in the last chapter, which the motivated reader reads appropriately alongside the foregoing. (No it-can-be-showns for Professor Huckaba!)

References in the sequel, especially to the chapter notes may be found in the text.

Chapter I (Total Quotient Rings) introduces various properties of the commutative ring R, its total quotient ring denoted

$$T(R) = \{a/b | a \in R, b \in R^*\},$$

where R^* is the set $R \backslash Z(R)$, and $Z(R)$ is the set of zero divisors of R. Also frequently used is the so-called complete (or maximal) ring $Q(R)$ of quotients, for which the author refers to the classic book of Lambek *Lectures on Rings and Modules* (currently reprinted by Chelsea).