# BOOK REVIEWS

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*Number theory, an approach through history from Hammurapi to Legendre*, by André Weil, Birkhäuser, Boston, Inc., Cambridge, Mass., 1984, xxi + 375 pp., $19.95. ISBN 3-7643-3141-0

A recent book contained the dedication

Hommage à André Weil
pour sa Leçon: goût,
rigueur et pénétration.

The author thus expressed his appreciation for Weil's refined mathematical taste, his rigor in exposition, and the depth of his work. The present book displays once more all these qualities. It is written in a prose which is precise, with a pleasant rhythm, very agreeable to read.

To state that the subject matter has been very well researched and the author has found the relevant documents—is obvious, but insufficient to express the lifelong familiarity of Weil with the historical development of number theory. Nourished in the mathematics of the past, Weil propelled the future. In number theory and algebraic geometry his well-known discoveries and conjectures have their roots in genuinely classical work.

Weil has chosen to develop his book around four mathematicians among past giants, Fermat, Euler, Lagrange and Legendre—the period to be covered excluded a priori their successors Gauss, Dirichlet, Kummer, Riemann, and others.

In reviewing this book, I have decided that, rather than paraphrase what is already so well written, I'd quote directly from the text—a good "collage" should be worthier than a bad painting.

A protohistory precedes the main chapters, alluding to some significant developments of number theory since antiquity.

"It is not prehistory, since it depends on written sources; protohistory seems more appropriate."

"The modern theory of numbers, like the god Bacchus... seems to have been twice-born." The first birth is ascribed to the period when Fermat studied the book of Diophantus, translated into Latin and published by Bachet in 1621—"the same one, no doubt, into whose margins [alas, too narrow] he was later to jot down some of his best discoveries." The rebirth took place when