

MAHĀVĪRA

(fl. Mysore, India, ninth century)

mathematics.

Mahāvīra, a Jain, wrote during the reign of Amoghavarṣa, the Rāṣtrakūṭa monarch of Karnāṭaka and Mahārāṣṭra between 814/815 and about 880. Nothing else of his life is known. His sole work was a major treatise on mathematics, the *Gaṇitasārasaṅgraha* (see essay in Supplement), in nine chapters:

1. Terminology.
2. Arithmetical operations.
3. Operations involving fractions.
4. Miscellaneous operations.
5. Operations involving the rule of three.
6. Mixed operations.
7. Operations relating to the calculations of areas.
8. Operations relating to excavations.
9. Operations relating to shadows.

There is one commentary on this work by a certain Varadarāja, and another in Kannāḍa, entitled *Daivajñavallabha*.

BIBLIOGRAPHY

The *Gaṇitasārasaṅgraha* was edited, with an English trans. and notes, by M. Rāṅgācārya (Madras, 1912); and with a Hindī *anuvāda* by Lakṣmīcandra Jaina as *Jīvarāma Jaina Granthamālā* 12 (Solāpura, 1963). There are discussions of various aspects of this work (listed chronologically) by D. E. Smith, “The Ganita-Sara-Sangraha of Mahāvīrācārya,” in *Bibliotheca mathematica*, **3**, no. 9 (1908–1909), 106–110; B. Datta, “On Mahāvīra’s Solution of Rational Triangles and Quadrilaterals,” in *Bulletin of the Calcutta Mathematical Society*, **20** (1932), 267–294; B. Datta, “On the Relation of Mahāvīra to Śrīdhara,” in *Isis*, **17** (1932), 25–33; B. Datta and A. N. Singh, *History of Hindu Mathematics*, 2 vols. (Lahore, 1935–1938; repr. in 1 vol., Bombay, 1962), *passim*; E. T. Bell, “Mahāvīra’s Diophantine System,” in *Bulletin of the Calcutta Mathematical Society* **38** (1946), 121–122; and A. Volodarsky, “O traktate Magaviry ‘Kratky kurs matematiki,’” in *Fizikomatematicheskie nauki v stranakh vostoka*, II (Moscow, 1969), 98–130.

David Pingree

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