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(fl. India, ninth century)

mathematics.

Śrīdhara of whose life nothing is known save that he was a devotee of śiva, wrote two works on arithmetic, the *Pāṭīganita* and the *Pāṭīganitasāra* or *Triśatikā*, and one work, now lost, on algebra. Since he seems to refer to the views of Mahāvīra (fl. ninth century), and was used by Āryabhata II (fl. between ca. 950 and 1100) and cited by Abhayadeva Sūri (fl. 1050), it can be concluded that he flourished in the ninth century.

The *Pāṭīganita* is divided into two sections. The first, after metrological definitions, covers the mathematical operations of addition, subtraction, multiplication, and division; finding squares and square roots; finding cubes and cube roots; fractions; and proportions; the second gives solutions for problems involving mixtures, series, plane figures, volumes, shadows, and zero. The text, preserved in a unique manuscript in Kashmir, breaks off in the middle of the rules for determining the areas of plane figures in the second section. The *Triśatikā* summarizes much of the material in the *Pāṭīganita*, including the parts no longer available to us. In the Kashmir manuscript there is an anonymous commentary on the *Pāṭīganita*, and the *Triśatikā*; was commented on by Śrīdhara, himself and in Kannada (Kanarese), Telugu (by Vallabha), and Gujarātī; the commentaries on the *Triśatikā* ascribed to śambhūnātha or śambhūdāsa (fl. 1428: *Ganitapancavimśatikā* or *Ganitasāra* and to Vrndāvana śukla (*Pāṭīsāratīkā*) are still uncertain, pending an investigation of the manuscripts.

BIBLIOGRAPHY

The best work on Śrīdhara. Is the introduction to K. S. Shukla's valuable ed. and trans., *The Patiganita of Sridharacarya* (Lucknow, 1959). There is also a Russian trans. and study of the *Pāṭīganita* by A. I. Volodarsky and O. F. Volkovoy in *Fiziko-matematicheskie nauki v stranakh vostoka* (Moscow, 1966), 141-246. The *Triśatikā* was edited by Sudhākara Dvivedin (Benares, 1899) and was largely translated into English by N. Ramanujacharia and G. R. Kaye. "The *Triśatikā* of Śrīdharācāria in *Bibliotheca mathematica*. 3rd ser., **13** (1912-1913), 203-217.

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