

Magnitsky, Leonty Filippovich I

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(*b.* Ostashkov, Russia, 19 June 1669; *d.* Moscow, Russia, 30 October 1739)

mathematics.

No precise information exists on Magnitsky's origins and early years. It also is possible that he studied in Moscow at the Slavonic, Greek, and Latin Academy founded in 1687. It is also possible that he acquired his broad knowledge, which included many foreign languages, independently. In 1701 Peter the Great founded the Navigation School in Moscow, and it soon became the breeding ground for the technical intelligentsia. Peter brought Magnitsky there to teach in 1702. Magnitsky worked there for the rest of his life, and was named director in 1715.

Magnitsky's *Arithmetic* (1703) was the first guide to mathematics published in Russia. Its first edition of 2,400 copies was extraordinarily large for that time and it served as the basic textbook of mathematics in Russia for half a century. The founder of Russian science, Lomonosov, called it, along with one grammar book, "our gateways to learning." Magnitsky's textbook successfully combined the tradition of Russian mathematical literature of the seventeenth century with that of the western European mathematical schools. In the first section a detailed exposition of mathematical problems is given. The second section, almost an encyclopedia of the natural sciences of the time, contains information on algebra and its geometrical applications, the computation of trigonometric tables of sines, tangents, and secants, and information on navigational astronomy, geodesy, and navigation. There are also tables of magnetic declination, tables of latitude of the points of rising and setting of the sun and moon, and coordinates of the most important ports with their times of high and low tide.

Magnitsky also participated in the preparation of a Russian edition (1703) of the logarithmic tables of Vlacq (1628).

BIBLIOGRAPHY

Magnitsky's one published work was *Arifmetika, sirech nauka chislitel'naya. Tablitsy sinusov, tangensov i sekansov i logarifma sinusov i tangensov* ("Arithmetic. Called the Computational Science. Tables of Sines, Tangents, and Secants and Logarithms of Sines and Tangents"; Moscow, 1703).

Works about Magnitsky are: A. P. Denisov, *Leonty Filippovich Magnitsky* (Moscow, 1967); D. D. Galanin, *Leonty Filippovich Magnitsky i yego "Arifmetika"* ("Leonty Filippovich Magnitsky and his 'Arithmetic'"), 3 vols. (Moscow, 1914); and A. P. Youshkevitch, *Istoria matematika v Rossii do 1917 goda* ("History of Mathematics in Russia Until 1917"; Moscow, 1968).

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