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A Legend of Mathematics-Bhaskaracharya

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Abstract Bhaskara II or Bhaskarachrya was an Indian mathematician and astronomer. His mathematical works Lilavati" and Bijaganita are considered to be unparalleled and a memorial to his profound intelligence. His arithmetic text Lilavati is divided into 13 chapters and covers many branches of mathematics, arithmetic, algebra, geometry, and a little trigonometry and mensuration and methods to solve indeterminate equations, and combinations.

His Bijaganita ("Algebra") was a work in twelve chapters. It was the first text to recognize that a positive number has two square roots (a positive and negative square root). His work Bijaganita is effectively a treatise on algebra

In his treatise Siddhant Shiromani he writes on planetary positions, eclipses, cosmography, mathematical techniques and astronomical equipment.

Birth of Bhaskaracharya

Bhaskara II or Bhaskarachrya was born near Bijjada Bida (in present day Bijapur district, Karnataka state, South India) into the Deshastha Brahmin family. His father Mahesvara was as an astrologer, who taught him mathematics, which he later passed on to his son Loksamudra. Loksamudra's son helped to set up a school in 1207 for the study of Bhskara's writings.

Introduction

Bhaskaracharya wrote Siddhanta Shiromani in 1150 AD when he was 36 years old. It is divided into four parts, Lilawati, Beejaganit, Ganitadhyaya and Goladhyaya. In fact each part can be considered as separate book.

This is a mammoth work containing about 1450 verses. The numbers of verses in Lilawati are 278, in Beejaganit there are 213, in Ganitadhyaya there are 451 and in Goladhyaya there are 501 verses.

Siddhanta Shiromani has surpassed all the ancient books on astronomy in India. It consists of simple methods of calculations from Arithmetic to Astronomy. After Bhaskaracharya nobody could write excellent books on mathematics and astronomy in lucid language in India. Bhaskaracharya used to give no proofs of any theorem.