

1 • Introduction



Fibonacci

Who was Fibonacci?

Leonardo Fibonacci, mathematical innovator of the thirteenth century, was a solitary flame of mathematical genius during the Middle Ages. He was born in Pisa, Italy, and because of that circumstance, he was also known as Leonardo Pisano, or Leonardo of Pisa. While his father was a collector of customs at Bugia on the northern coast of Africa (now Bougie in Algeria), Fibonacci had a Moorish schoolmaster, who introduced him to the Hindu-Arabic numeration system and computational methods.

After widespread travel and extensive study of computational systems, Fibonacci wrote, in 1202, the *Liber Abaci*, in which he explained the Hindu-Arabic numerals and how they are used in computation. This famous book was instrumental in displacing the clumsy Roman numeration system and introducing methods of computation similar to those used today. It also included some geometry and algebra.

Although he wrote on a variety of mathematical topics, Fibonacci is remembered particularly for the sequence of numbers

$$1, 1, 2, 3, 5, 8, 13, 21, 34, 55, \dots,$$

to which his name has been applied. This sequence, even today, is the subject of continuing research, especially by the Fibonacci Association, which publishes *The Fibonacci Quarterly*.

We shall study some elementary and interesting aspects of the Fibonacci and related numbers in this booklet.