**Fujioka Historical Museum**

**Seki Takakazu (1642?**–**1708)**

Seki Takakazu, born sometime between 1635 and 1643, is regarded as the premier Japanese mathematician of the Edo period (1603–1867). He has also been called the Isaac Newton of Japan.

Seki showed a strong aptitude for mathematics and calculations from an early age. When he was a young man, he became involved in a project to improve the accuracy of Japan’s calendar. Later he began to work on mathematical theories based on knowledge imported from China, contributing to the development of *wasan*, a branch of mathematics used in Japan during the Edo period.

By 1674, Seki had invented a method of algebraic calculation. His work on the calendar led him to calculate the value of pi to 11 decimal places around 1681 and later to 16 decimals. His methodology was almost the same as the Aitken Extrapolation series acceleration method introduced in 1926 by New Zealand mathematician Alexander Aitken (1895–1967), nearly two and a half centuries after Seki.

Seki made several mathematical discoveries similar to those found by Western mathematicians working at roughly the same time, even though he worked independently without any contact with the West. For example, he found and wrote about the sequence of rational numbers known as Bernoulli numbers; his work was published posthumously in 1712, one year before the work of Swiss mathematician Jacob Bernoulli (1655–1705) was published. He also engaged in calculations using advanced methods resembling those used in Western calculus.

Seki’s *wasan* methods predominated in Japan until the introduction of Arabic numerals and Western mathematics in the late nineteenth century. His work is still highly regarded by mathematicians in Japan and around the world.