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The Lichtenberg Sequence,
Fibonacci Quart. **55** (2017), no. 1, 2–12.

Abstract

The discovery of two passages from 1769 by the German Georg Christoph Lichtenberg and the Japanese Yoriyuki Arima, respectively, sheds some new light on the early history of integer sequences and mathematical induction. Both authors deal with the solution of the ancient *Chinese rings* puzzle, where metal rings are moved up and down on a very sophisticated mechanical arrangement. They obtain the number of (necessary) moves to solve it in the presence of n rings. While Lichtenberg considers all moves, Arima concentrates on the down moves only of the first ring. We will present a unified view on integer sequences and discuss some of their most fundamental representatives before collecting properties of the *Lichtenberg sequence* ℓ_n, defined mathematically by the recurrence $\ell_n + \ell_{n-1} = 2^n - 1$, and related sequences such as the *Jacobsthal sequence*, which is the sequence of differences of ℓ. And, of course, at some point Fibonacci numbers will enter the scene.