

Comparison of Periodicity in Different Number Types

The HAPD algorithm produces periodic sequences only for cubic irrationals. Rational numbers terminate, while quadratic irrationals do not exhibit periodicity in this algorithm.

Period Length

10
8
6
4
2
0

No period

Rational

No period

Quadratic
Irrational

5

Cubic Irrational
(Real Roots)

7

Cubic Irrational
(Complex Roots)

Number Type

