

Discovery of Length-7 Prime Chains in the Extended 5-adic Collatz-like Map

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A research note on prime-generating behavior in the 5-adic Collatz-like map:

$f(x) = (6x + c) / 5$, where $c \in \{-1, +3, -3, +1\}$ is chosen based on $x \bmod 5$ to ensure divisibility.

Discovered Length-7 Prime Chains

Chain 1:

19,084,201
22,901,041
27,481,249
32,977,499
39,572,999
47,487,599
56,985,119

Chain 2:

76,933,159
92,319,791
110,783,749
132,940,499
159,528,599
191,434,319
229,721,183