

Length-7 Prime Chains under the Collatz Map

Hiroshi Harada

February 19, 2026

A research note on prime-generating behavior in the Collatz map

$$f(x) = (3x + 1)/2$$

The following length-7 chain was identified:

$$x_0 = \mathbf{89599}$$

$$x_1 = \mathbf{134399}$$

$$x_2 = \mathbf{201599}$$

$$x_3 = \mathbf{302399}$$

$$x_4 = \mathbf{453599}$$

$$x_5 = \mathbf{680399}$$

$$x_6 = \mathbf{1020599}$$