

1128-11-353

Caleb N Hunter* (caleb.hunter@wallawalla.edu), PO Box 832, Eatonville, WA 98328. *Loops in a Generalized Collatz Mapping*. Preliminary report.

The focus of this exploration is a generalized form of the Collatz mapping. In particular the goal was to find patterns in the cycles formed by various starting rules in the Collatz mapping, as well as note any other interesting patterns. The two methods used to do so was to create a divisibility test capable of verifying whether a given path forms a valid cycle and also using a computer to help search for and categorize various cycles. (Received March 01, 2017)