

1135-VS-2471 **Ji Young Choi*** (jychoi@ship.edu), 1871 Old Main Dr., Department of Math, Shippensburg,
PA 17257. *Generalized Collatz functions and Jacobsthal numbers*. Preliminary report.

Let g be an integer greater than 1, and let $b = g + 1$. For any positive integer n , we consider a generalization of Collatz function: $f(n) = \frac{n}{g}$ if n is a multiple of g ; $\lceil \frac{bn}{g} \rceil$ otherwise. Using this function, we consider a sequence of the base- b representation of integers, starting with b^N for an arbitrary large integer N . This talk will show the number of digits in each repeating string of the sequence generalizes the Jacobsthal numbers. (Received September 26, 2017)