1035-R1-317   **Robert P. Webber*** (`webberrp@longwood.edu`), Math and Computer Science Department, Longwood University, Farmville, VA 23909. *Using Spreadsheets to Help Students Think Recursively.*

Spreadsheets lend themselves naturally to recursive computations, since formulas can be defined as functions of one or more preceding cells. A hypothesized closed form for the nth term of a recursive sequence can be tested by using a spreadsheet to compute a large number of the terms recursively. Similarly, a conjecture about the sum of an infinite series can be tested by using a spreadsheet to compute a bunch of partial sums recursively. Once students have some evidence that a closed form is probably not wrong, they can prove it correct using induction. This paper will explore these techniques. (Received September 02, 2007)