1023-Z1-507   **William R. Harris*** (`wharris@georgetowncollege.edu`), Dept. of Mathematics, 400 E. College St. #234, Georgetown, KY 40324. *Computational Exercises on Carmichael Numbers and Pollard Rho Factorization.*

In Spring 2006 I taught a course on number theory and cryptology with a computational component. I will describe two Mathematica laboratory exercises which have evolved from my experience in this course. One is based on the well-known result that the product $(6k+1)(12k+1)(18k+1)$ is a Carmichael number when all three factors are prime; students search for other conditions under which products of three primes are Carmichael numbers and generate many such numbers. The other exercise implements a relatively easily described algorithm for Pollard Rho factorization. The talk will include worked examples. (Received September 15, 2006)