1014-A0-234   **Judy L. Walker*** (`jwalker@math.unl.edu`), Department of Mathematics, University of Nebraska-Lincoln, Lincoln, NE 68588-0130. *The Joy of Teaching The Joy of Numbers.*

One of my favorite courses to teach is "The Joy of Numbers", an introductory number theory course for freshmen in the Honors Program at Nebraska. Though all the students in this course are honors students, they are not necessarily mathematically inclined. And yet these students, some of whom cringe at elementary algebra, learn to write proofs as they work their way from the definition of what it means for one integer to divide another, through card shuffling and identification numbers, to the RSA scheme for public key cryptography. In this talk, I will discuss this course (which is based on a course developed by Ron Rosier at Georgetown) and why, in my view, teaching at all levels really is a joy. (Received August 29, 2005)