

1023-Z1-691

William P. Wardlaw* (wpw@usna.edu), Mathematics Department, Annapolis, MD 21402, and
Richard F. Maruszewski and **Allen J. Schwenk**. *The Extended Euclidean*

Algorithm. Preliminary report.

The extended Euclidean algorithm is well known - at least to those who know it well. This will be a trivial talk showing how to find the gcd of two (or more numbers) and write it as a linear combination $\gcd(a,b) = xa + yb$ without "backtracking" through the remainders. The talk is hoped to convince you to show this to your students and use it yourself, because too many number theory and abstract algebra books do it by backtracking. The talk will be understandable to students at all levels, and they are encouraged to attend. (Received September 20, 2006)