Jeffrey A. Ehme* (jehme@spelman.edu), Dept of Math, Box 214, 350 Spelman Lane SW, Spelman College, Atlanta, GA 30314. Finding Large Primes: Miller-Rabin and Beyond.

The Miller-Rabin test is used to quickly locate numbers that are probably prime. This test makes use of standard mathematics generally taught in a first semester abstract algebra course. During this presentation, we will explain in detail how and why the test works. We will also indicate some directions for generalizing this test. (Received September 18, 2007)