MATH 42-NUMBER THEORY
PROBLEM OF THE DAY #20
DUE TUESDAY, APRIL 26, 2011

1. Are there are infinitely many primes in the integers? Can you prove it? Are there infinitely many primes of the form $4k+1$? What about $4k+3$? Do you think it's true that for any a and b in $\mathbb{N}$, there are infinitely many primes of the form $ak+b$?