MATH 42-NUMBER THEORY PROBLEM OF THE DAY #14 DUE THURSDAY, MARCH 24 2011

1. Factor the following Gaussian integers into Gaussian primes (that is, factor until you can't anymore): 2+4i, 30, 7+9i. What are the norms of the Gaussian primes in your factorizations? In general, can you guess what the norm of a Gaussian prime can be?