Math 202 — Homework #4

Due May 5, 2011

The page and problem numbers below refer to the third edition of Dummit and Foote's "Abstract Algebra."

- Read Sec 12.1, #16–19. These problems outline a proof of the structure theorem when the ring R is a Euclidean domain. This technique is useful in practice, e.g. when the ring in question is $R = \mathbf{Z}$. The problems are laborious but kind of straightforward, so I think you can just read them without doing them.
- Sec 12.1, #21, 22.
- Sec 12.2, #12, 13, 20.
- Sec 12.3, #2, 4, 17, 31, 32, 37, 38, 39.