

Math 530: Problem Set 3

Due date: In class on Wednesday, February 18.

Course Web Page: <http://dunfield.info/530>

Office hours: Monday 10-11, Tuesday 2:00 - 3:00, and by appointment. My office is Altgeld 378 (in the south wing).

1. Marcus, Chapter 2, Problem 33.
2. Marcus, Chapter 2, Problem 35.
3. Marcus, Chapter 3, Problem 9.
4. Marcus, Chapter 3, Problem 11.
5. Marcus, Chapter 3, Problem 12, with the addition of:
Part (f): What are the norms of the two ideals $(\alpha + 2)$ and $(5, \alpha^2 + 3\alpha - 1)$? Which of them are prime?
6. Marcus, Chapter 3, Problem 13.