## HOMEWORK 6

DUE 2 JUNE 2017

- 1. Atiyah-MacDonald, Chapter 5, Exercise 5.
- 2. Atiyah-MacDonald, Chapter 5, Exercise 14.
- 3. Atiyah-MacDonald, Chapter 5, Exercise 15.
- 4. Atiyah-MacDonald, Chapter 5, Exercise 28.
- 5. Atiyah-MacDonald, Chapter 6, Exercises 3,4.
- 6. Atiyah-MacDonald, Chapter 6, Exercises 5-7.
- 7. Atiyah-MacDonald, Chapter 6, Exercise 8.
- 8. Atiyah-MacDonald, Chapter 7, Exercise 1.
- 9. Atiyah-MacDonald, Chapter 7, Exercise 4.
- 10. Atiyah-MacDonald, Chapter 7, Exercise 8.
- 11. Atiyah-MacDonald, Chapter 7, Exercise 15.
- 12. Atiyah-MacDonald, Chapter 8, Exercise 2.
- 13. (Challenge problems) Atiyah-MacDonald, Chapter 5, Exercises 31-33. These exercises are useful if you ever want to understand adic and perfectoid spaces the hottest topic in number theory these days.