

Solve the following exercises from Ferguson's Lecture Notes:

1. Exercises 3 and 4 from Section 1.5 of Part II;
2. Exercise 2 from Section 4.7 of Part II;
3. Exercises 6 and 10(a) from Section 5.9 of Part II;
4. Exercise 3 from Section 1.6 of Part III;
5. Exercise 4 from Section 2.5 of Part III;