Math 243: Mathematical Structures, Spring 2020   **Prof. Ballantine**

Homework Assignment # 9
DUE: Thursday, April 23, at 5:00pm in Moodle.

The numbered exercises refer to the manuscript *Mathematical Structures*. Always justify all assertions.

1. Exercise 7.11 (parts (a),(b),(c),(d), (e)) It might be easiest to consider different cases (case 1: $a \geq 0$; case 2: $a < 0$. Etc.) in each part.

2. Exercise 7.12 (parts (a) and (b)). You just need to give an answer using the manipulation of formulas (but you should think about what the statements mean in words.

3. Exercise 7.14

4. Exercise 7.33

5. Exercise 8.8

6. Exercise 8.10

7. Exercise 8.12