

Homework Assignment # 3

DUE: Thursday, February 13, at the **beginning** of class

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

- Exercise 1.30 part (a) and (c) (For part (c), use the set $A = \{1, 2, 3\}$ and $A' = \{1, 2, 3, 4\}$ rather than the sets involving card suits.)
- Exercise 2.2 part (a) (In this exercise a^2 means $a \cdot a$.)
- Exercise 2.6 part (c)
- Exercise 2.8 (Use the notation of Exercise 2.7.)
- Exercise 2.10 (Use the notation of Exercise 2.7.)
- Exercise 2.17, parts (a) and (b) (You need only give one (algebraic) proof in each part. Use the definition of absolute value and its properties from Exercise 2.14.)