

**Due Wed, May 28th, at 11:59pm on Gradescope**

Please show your work. Where it makes sense, your solutions should be written in full sentences. Recall that proof-writing problems will be graded on correctness as well as clarity and exposition.

**From Enderton:**

1. p. 158, Exercise 20
2. p. 161, Exercise 26
3. p. 165, Exercises 32, 34
4. p. 172, Exercise 1
5. p. 178, Exercises 4, 7

**Additional problem:**

6. Recall that  $Sq(A)$  is the set of all finite sequences in  $A$ , where we define a finite sequence in  $A$  to be a function from some natural number  $n$  to  $A$ . Show that if  $A$  is infinite then  $A \approx Sq(A)$ . You may use the Axiom of Choice.