Math 118: Homework 3

1. Chapter 2, Exercise # 7

2. Chapter 2, Exercise #8

3. Chapter 2, Exercise #9

4. Chapter 2, Exercise #12

5. Chapter 2, Exercise #13
(For this, you may use that a closed and bounded set of real numbers is known to be compact.
So the question is asking for a closed, bounded set E of $\mathbb{R}$ such that E' is countable.)

6. Chapter 2, Exercise #14