

# Chapter 1

## The Real and Complex Number Systems

### 1.1 Notes

11/1:

- Spent a lot of time trying to cheer us up regarding the midterm.
- There may be some true/false on linear algebra on the final.
- Facts:
  1.  $\sqrt{2}$  is irrational.
  2. Archimedes principle: If  $x > 0$  and  $y \in \mathbb{R}$ , then there exists  $n$  such that  $nx > y$ .
  3. If  $x > y$ , then there exists  $q \in \mathbb{Q}$  such that  $x > q > y$ .