

Assignment #1

Due Wednesday, 4 September 2019, at the start of class

Make sure you have a copy of the textbook:

Carothers, *Real Analysis*, Cambridge University Press 2000.

Please read Chapters 1 and 2. This homework is about Chapter 1, and we will return as needed to Chapter 2, but the course really starts with Chapter 3.

One problem is identified with your initials. Please L^AT_EX this problem and send both the .tex and .pdf to elbueler@alaska.edu by the same due date, i.e. at the start of class Wednesday 4 September. See the course website for a L^AT_EX template.

DO THE FOLLOWING EXERCISES from the textbook:

- Exercise #4 on page 4.
- Exercise #6 on page 5. ← **AM**
- Exercise #8 on page 5. ← **WV**
- Exercise #11 on page 7.

(For your information, this is an efficient way to compute the square root of a number if an estimate is available. It is the Newton iteration for solving $x^2 = a$.)

- Exercise #14 on page 7. ← **DD**
- Exercise #18, parts (a),(b) only, on page 10.
- Exercise #20 on page 10.