

## Writing assignment for Thursday, September 5

Homework for Thursday:

Last week, you thought about the idea of continuity. Many of you described your relationship with the idea, and mainly gave some *intuition*. (Things such as “no breaks, no jumps, never lift your pencil,” are intuitions, not rigorous definitions.)

Now, I want you to consider the  $\epsilon - \delta$  definition of continuity.

Writing assignment: Explore the way in which the epsilon-delta definition conforms to the intuitions you have.

You *must* turn in something written (or printed) to me on Thursday by beginning of class.

Your thinking may go along the lines of:

- What does the  $\epsilon - \delta$  definition say about how a graph looks?
- Can I translate my intuitive words (“no jumps”) into something more mathematical? How close can I get to epsilon-delta?

You do *not* need to answer each, nor any, of the above questions. The questions above are just meant to give examples of things you, or your classmates, may naturally want to ask.

**Warning 1.8.1.** As the semester goes on (and it’s going on now!) I will be more strict about your writing; I would like you to be precise, and—where necessary—use mathematical language.

You may still write in diary form. But just as musical notation helps you to precisely communicate the music in your mind, the mathematical language will help both of us understand more precisely the mathematics in your mind.