

Reading Assignment 22: The Search for Rigor

Required Readings:

- Pages 426-434 of Morris Kline. *Mathematical thought from ancient to modern times*, volume 2. Oxford University Press, 1990a.
- Chapter 18 of [Kline, 1990a].
- Chapter 40. Sections 1, 2, and 7 of Morris Kline. *Mathematical thought from ancient to modern times*, volume 3. Oxford University Press, 1990b.

Questions:

- Write down the page numbers of two paragraphs that you found confusing and/or difficult to understand. Send me an email with at least one question about those paragraphs the night before class.
- According to Kline, how did the relative importance and use of geometry and algebra change in the 18th century?
- Explain to the best of your ability what mathematicians in the nineteenth century were trying to do in “arithmetizing” or providing “arithmetic” foundations to analysis.
- Why did the early 19th century “rigorization” of analysis fail to “prove to be the end of the investigation into the foundations [of real analysis]” according to Kline?

References

Morris Kline. *Mathematical thought from ancient to modern times*, volume 2. Oxford University Press, 1990a.

Morris Kline. *Mathematical thought from ancient to modern times*, volume 3. Oxford University Press, 1990b.