

1135-VJ-2202 **Eugene C. Boman*** (ecb5@psu.edu). *Limits Belong at the End of Differential Calculus, Not at the Beginning.*

The typical first semester Calculus course begins with the formal definition of the limit, which is then used to develop the familiar rules for differentiation. Logically, this makes perfect sense. Historically, it is backwards.

The limit concept was first rigorously stated after the ideas and techniques of Calculus had been fruitfully exploited for 200 years. That is, the limit concept was not a precursor to the use of Calculus it was a postscript. It is the solution to the problem, "Why does Calculus work?" When we teach limits first we are giving our students the solution of this problem, without first stating the problem.

I will discuss my recent attempt to implement this philosophy by reordering of topics in a first semester calculus course. (Received September 25, 2017)