

Mathematics 3820H – Mathematics from medieval to modern times

TRENT UNIVERSITY, Fall 2020

Assignment #5

Fluxions

Due on Friday, 27 November.

Read pp. 51-68 of Colin MacLaurin's *A Treatise of Fluxions* and then answer the following:

1. State Theorem IV on p. 66 of *A Treatise of Fluxions* in your own words and symbols and then prove it yourself. [6]
2. Compare and contrast your proof with the one given by MacLaurin, and account for the differences. [4]

REFERENCE

1. *A Treatise of Fluxions*, Vol. I, by Colin MacLaurin (Edinburgh, 1742), which can be found on Blackboard, on the course archive page, and online (pdf and epub) at:
<http://books.google.ca/books?id=dCAOAAAAQAAJ>

This book was MacLaurin's attempt to make the foundations of calculus rigorous in response to George Berkeley's criticisms, for which check out, if you wish, *The Analyst* [2nd edition] (London, 1754). It can be found online (pdf) at:

<http://books.google.ca/books?id=TqCZhiQdXogC>