
JACK WEINER & JEREMY BALKA, University of Guelph, Guelph, Ontario, N1G 2W1

Implementing and Evaluating Maple in the Classroom and Maple TA Online Testing in First Year Calculus

At the University of Guelph, we have been incorporating Maple in honours first year calculus to help us mathematically explore, visualize, verify, and sometimes just to have mathematical fun. Beyond the classroom, we have designed completely algorithmic Maple Testing and Assessment test banks for every week of the course.

In the first part of the talk, Jack Weiner will show how Maple has taken usually difficult topics like Volumes of Revolution and brought them to life. He will also show how effectively TA tests can ensure mastery of the fundamental learning objectives of the course.

Then Jeremy Balka will discuss some problems encountered when trying to evaluate the effectiveness of these methods along with some preliminary statistical results.

A web address will be provided so that interested participants can download files of the class notes and the TA test banks.