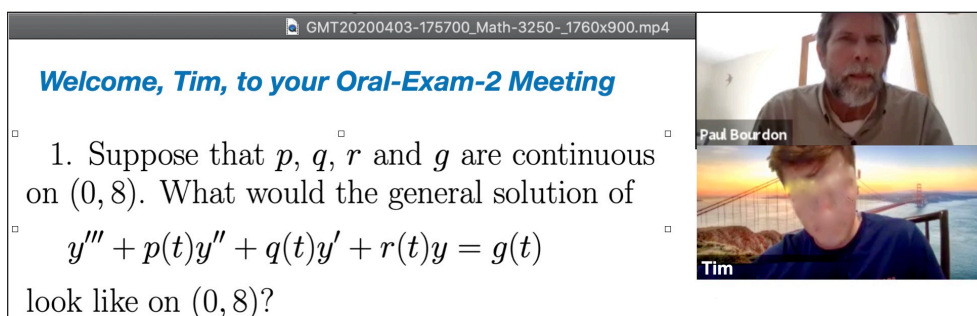


# Electronic Seminar on Mathematics Education

## Meaningful, Motivating Online Assessments

Paul Bourdon, University of Virginia



The screenshot shows a Zoom meeting interface. On the left, a slide titled "Welcome, Tim, to your Oral-Exam-2 Meeting" contains a math problem: "1. Suppose that  $p$ ,  $q$ ,  $r$  and  $g$  are continuous on  $(0, 8)$ . What would the general solution of  $y''' + p(t)y'' + q(t)y' + r(t)y = g(t)$  look like on  $(0, 8)$ ?" On the right, there are two video thumbnails: the top one is for Paul Bourdon and the bottom one is for Tim.

Last spring, with the unexpected move to online instruction and colleagues reporting, "There's cheating all over the place," I opted to give oral exams to students in my ODEs and Math-for-Physics classes.

Special circumstances (which I'll describe) provided an opportunity to deliver oral final exams in the two multi-section Calculus-I courses I was coordinating. I'll discuss the pros and cons of oral exams, making a case that, for an experienced instructor, the pros outweigh the cons, even for classes whose enrollments are as large as 50 students. I'll conclude by discussing my fairly positive experience this fall delivering common written exams through WebAssign to students in a multi-section Calculus-I course.

**Noon ET, January 5, 2021**

Zoom link: <https://cornell.zoom.us/j/92078267146>, passcode esme

For more information on ESME: <http://math.mit.edu/seminars/esme/>

