Miniproject 10: Video Lesson

Overview: In this Teaching Item you will create a short video that introduces a course learning outcome and teaches students how to demonstrate proficiency at solving problems of that type.

Prerequisites: A strong background in Optimization and Related Rates problems of Sections 3.4 and 3.5 of *Active Calculus*.

You lesson must cover either the Related Rates course learning outcome or the Optimization course learning outcome. To obtain a **Passing** grade your work should include

- an explanation of the type of problem that is being tested and why it is important,
- a demonstration problem that is different than any problem from the textbook or from class,
- appropriate visuals that work that demonstrate the writing standards of our course, and
- any study tips or hints that will help a student to succeed in this problem on an exam.

Your video can be of any flavor you choose. You may decide to do a screencast like those we watch as part of our Guided Practice. You might record a tutoring session between students. You might decide to make a common craft style video. There are no restrictions, though you might want to run any radical ideas by me before getting too far along.

The video does not need to be Hollywood quality, but the audio and video need to be clear and non-distracting. The Piazza discussion board would be a good place to talk about useful software for video creation and/or editing.

The goals of your activity are to help other students master the CORE learning outcome and to demonstrate that you have full command of the CORE problem yourself. The learning activity should be aimed at the standard audience for Math 181, your classmates. Be sure to follow the guidelines for earning mastery at our course home page.

The video may not exceed 5 minutes in length, so be sure to plan ahead. Also, be aware that there might be a bit of a learning curve with uploading your video to youtube. Please give yourself adequate time.

Submission instructions: The video should be posted online to youtube or another video sharing site. Submit a url to your video through the assignment link in Canvas.