

Related Rates Video Project

In a group of two or three, design a related rates situation. Create a video of the scenario as well as a problem(s) to be answered. Use Logger Pro to analyze your video and solve your problem!!

Use the Cone Activity done in class as a starting point. Ideas to consider:

- Water or other liquid flow in different shaped containers. (Wouldn't a sphere be cool?)
- The classic 'ladder problem' using a meter stick or other object.
- The classic 'stop sign' problem: How fast the distance between two objects is changing as they travel away from each other?

You will need to turn in: I:\MMSTC\Homework\Calculus Dewey\Related Rates Video

- The video (yes, the actual file)
- A student worksheet with directions and questions to answer (hardcopy AND Word file)
- A worked out answer key (hardcopy only)

Grading Criteria:

- **Design:** Is it a well-designed related rates situation? Is the student worksheet well written and easy to understand? Does the student worksheet contain all necessary directions? Can the problems posed be answered with the created video?
- **Execution:** Does the video illustrate a related rates situation? Is the situation in the video clear and easy to see without interference? Does the video allow for insertion into LoggerPro and will it run?
- **Follow up:** Is the worked out answer key correct, complete, and easy to follow? Are required elements turned in both electronically and physically?

Assessment Points: 30