
Creativity in Calculus - Assignment #2

1. You are given a ramp and ball. Create a method for measuring the instantaneous velocity of the ball when it reaches the halfway point of the ramp (you will probably need to use your phones as well). Try to make the measurement as accurate as possible. How accurate is your measurement? How do you know its accuracy?

Homework Due Thursday, February 6th

1. Describe how your group constructed their experiment. Explain why this experiment should be able to approximate the velocity of the ball.
2. Using the data collected from the experiment, try to determine whether the ball is speeding up, slowing down, or maintaining a constant speed as it rolls down the ramp. Give your response using the data (don't simply refer to common sense about balls rolling down ramps)
3. On Moodle you will find a video of a car's odometer as it travels down a highway. (the odometer measures the distance traveled by the car).
 - (a) Determine whether the car is speeding up, slowing down, or maintaining a constant speed as it travels.
 - (b) Choose a single point in the video and estimate the car's speed at that point.