### Overview

If a teacher was absent from school and they taught a class as hard as calculus, it would be very useful for that teacher to broadcast their lesson over Justin.tv. If the students needed any help during class, they could just message the teacher over justin.tv, and the teacher could broadcast their response back. This way, the students would not be at a disadvantage, because their teacher could not be there to explain things. In this section, the students will learn the different aspects of differentiation. Since I, the teacher, will not be present they will be going to a computer lab to watch the live broadcast of myself on Justin.tv.

### Objective

Students will:

- Learn to understand derivatives as a rate of change or slope.
- They will be able to find the derivative of sums, products, quotients, and exponential terms.
- Be able to understand the applications of derivative.
- Also be able to calculate simple derivatives with up to 90% accuracy.

### ISTE/NETS Standards

- 4. Promote and Model Digital Citizenship and Responsibility
- 3. Model Digital-Age Work and Learning

### Materials

- 1 computer for each student
- Calculator
- Internet
- Computer
- Calculus Book
- Pencils, and Paper

### Procedure

First, all of the students will get onto their computer and go to Justin.tv to find my broadcast. I will then introduce them to the concept of a derivative. I will show them what a derivative is (slope) and why we would want to use derivatives. I will then show them the process of calculation a derivative. After they see me do a couple of example problems, I will let them try a few examples out of the book on their own. At that time, I will open up the chat room and they can message me with their questions. I will try to answer each question upon seeing them. They can start their homework assignment if they think that they understand the concept. If they have any questions, I will answer them as long as the class lasts.
| Evaluation | They will be assigned 25 derivative problems to solve. If they do not perform well on those, we will keep reviewing derivatives until we can move on. |