The final writing project counts as 5% of your final grade. For the writing project you must pick two or more of the student learning outcomes for the course and write a two page report on what you learned related to these topics. For the more general learning outcomes, you may write about how we applied them to different material.

These reports must be typed in complete sentences. They should consist of examples to convey what you have learned and talk about the topics in general (using mathematical vocabulary).

The first draft due on Monday, November 25. The final draft will be due on Wednesday, December 11. (Students whose first draft needs heavy revisions may be asked to turn in other drafts before this date.)

**Student Learning Outcomes:**
Upon successful completion of this course, the student will be able to:

- Explain and apply the concept of limit, derivative and antiderivative and how they relate to slopes, rates of change, area under a curve, and other applications.
- Calculate limits, derivatives and integrals and use these to solve applied problems.
- Understand the definite integral as a limit of sums; approximate integrals numerically and evaluate them via the Fundamental Theorem of Calculus.
- Clearly communicate complete solutions to problems verbally and in writing. This involves using complete sentences to explain individual steps in the solutions, correct notation and proper units.
- Explain, interpret and correctly apply definitions. Provide examples and non-examples to illustrate definitions.
- Use valid reasoning (be able to provide a logical sequence of statements that follow each other) and be able to identify invalid reasoning. Provide counterexamples to disprove statements that are not always true.
- Determine and explain when particular theorems apply to a situation and apply them correctly.
- Outcome to explore: Prove simple theorems.

For example, for the learning outcome “**Explain, interpret and correctly apply definitions. Provide examples and non-examples to illustrate definitions**” you might explain two or three terms we defined related to derivatives and give examples to show that you understand these definitions. You might also write a few sentences about why it is important to have precise definitions in mathematics.

For the “**Clearly communicate complete solutions to problems verbally and in writing. This involves using complete sentences to explain individual steps in the solutions, correct notation and proper units.**” You can pick a more complicated problem that we had in class (perhaps from a midterm or written HW) and provide an extended written solution.