

**Instructions**

You should submit a carefully written report addressing the problems given below. You are encouraged to discuss ideas with others for this project. If you do work with others, you must still write your report independently.

Use the writing conventions given in *Some notes on writing in mathematics*. You should include enough detail so that a reader can follow your reasoning and reconstruct your work. You should not show every algebraic or arithmetic step. All graphs should be done carefully on graph paper or using appropriate technology.

The project is due in class on Friday, December 3. I will give an extension to until Monday, December 6 to anyone who asks.

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Write an essay on some aspect of calculus we have covered in this course. Your essay should focus on concepts and ideas rather than computational techniques. For example, you might write on how the main ideas of limit, continuity, and derivative are related. As another example, you might focus on a specific type of application such as related rates or optimization. You could explain what role the ideas of calculus play in the type of application.

- Assume that the reader is a peer in this course.
- You should aim to be clear, complete, and concise.
- Use all technical language with precision.
- You can include and refer to figures if you wish.
- Aim for 2 to 5 pages.
- If you use any written source other than our textbook, you should give an appropriate reference.
- Because mathematical expressions are time-consuming to type, you can submit a hand-written copy. If you do so, be legible. An alternative is to type the words leaving space to write the mathematical expressions in by hand.
- I will give you feedback on any draft or outline you submit to me by Tuesday, November 30. I'll return the draft or outline with comments by Thursday, December 2.