Name _____

MATH 121 Calculus and Analytic Geometry I Spring 2004 Project #3

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, March 25.

Write an essay summarizing the main calculus ideas we have covered (through Chapter 3) in this course. Focus on the main ideas or concepts and how these are related. Here are some details and comments:

- Assume that the reader is a peer in this course.
- You do not need to discuss the review of algebra, geometry, and trigonometry.
- You should aim to be clear, complete, and concise. You should have a complete story of calculus (at least the part we have seen). You do not need to include every detail. That is, you do not need to rewrite the textbook.
- Use all technical language with precision.
- You can include and refer to figures if you wish.
- There is no specific requirement on the length of the essay. One could do justice to this in less than 1000 words.
- 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 class time on Monday, March 22. I'll return the draft or outline with comments by Wednesday, March 24.