Name _____

MATH 121 Calculus and Analytic Geometry I Spring 2004 Project #4

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 Monday, April 12.

Read Sections 4.6 and 4.7 in the text. These sections involves optimization problems in geometry, the physical sciences, economics, business, and the life sciences. We have looked at optimization problems in geometry. Pick one of the other areas. Solve two relevant and interesting problems from the Problem Sets. At least one of the problems should be from Part B or Part C of a Problem Set. If you choose an odd-numbered problem, you may not look at or in any way use the solution in the *Student Survival and Solutions Manual*. You should include a signed statement to this effect.