Homework 7 - Math 141, Frank Thorne (thornef@mailbox.sc.edu)

Due Wednesday, October 17

(a) Stewart, Ch. 3.9, 2, 5, 11, 12, 13, 14, 15, 16.

You do not have to follow Stewart's (a)-(e) exactly (although this is a very good idea!) but with these problems especially, you should **explain what you are doing** in complete sentences and **draw a picture** if appropriate.

(b) Define the terms *local maximum*, *local minimum*, *absolute maximum*, itshape absolute minimum, and *critical number*.

(c) Describe how to find all the critical numbers of a function.

(d) Describe how to find all the local maxima of a function.

(e) (Trick question. Explain why.) Explain how to find all the absolute maxima of a function.

(f) Stewart, Ch. 4.1, 7-10, 13-14, 21-28, 47-54 (even).

Additional problems:

(a) Stewart, Ch. 3.9, 17, 20.

(b) Stewart, Chapter 3 Review (pp. 262-263), 15-40, 57-61, 65-66, 83-84. **That is a lot of problems.** If you do only a selection, then that is good enough! These problems are similar to previous problems and are fair game for the exams.

(c) Stewart, Ch. 4.1, 7-10, 13-14, 21-28, 47-54 (odd). even required, odd recommended.

Bonus (2 points): Problem 1 on "Problems Plus", p. 266.