Homework 9 - Math 141, Frank Thorne (thornef@mailbox.sc.edu)

Due Friday, November 9

    Please draw and label your pictures, list and describe your variables, highlight any equations that occur, and explain all of your work.

(a) Find two numbers whose sum is 12 and whose product is a maximum.

(b) Find two numbers whose sum is 12 and whose product is a minimum. (**This is not possible! Explain why.**)

(c) Find two numbers whose difference is 12 and whose product is a minimum.

(d) A farmer wants to build a rectangular fence along a river. She has 120 feet of fencing, and she does not need any fence along the river. What is the most area she can enclose?

(e) Stewart, Ch. 4.7: 11, 12, 14, 15, 17, 18, 21, 30, 44, 46, 47, 50, 52, 55, 58 (all).

(f) Stewart, Ch. 4.9, 1-14 (even).

Additional:

(a) Stewart, Ch. 4.7, 13, 16, 19, 24; 4.9, 1-14 (odd).

Bonus: (2 points) Section 4.7, 63.