## MATH 151 HW \#5: CHAPTER 12 <br> SPRING 2004

The notes are on my web site at http://www.geocities.com/kkuniyuk
Let me know if you need a hard (i.e., printed) copy of the notes!
We may have time for some discussion near the end of the semester.
You may turn this in anytime before you take the Final.
Consider photocopying your HW if you don't expect to collect it from me later.
Write your name (encoded, if you like) and clearly separate sections!
Show work where appropriate, and use "good form and procedure," as in the notes! Graded out of 10 points.
"*" denotes "See Hint below."

## 12.1: 1-23 odd

Note on 17, 19, 21: The book and the solutions manual employ a more efficient (but harder-to-remember) approach. Your answer may look different from the books' answers.
Look at: 26, 33
12.2: 1-23 odd, 26*, 33*

Answer to 26: Max. distance: 94,581,000 mi.; Min.: $91,419,000 \mathrm{mi}$. See Example 7 on p. 620.
Hint on 33: Use implicit differentiation.
Read Examples 6 (on the area of an ellipse) and 7 (on Halley's comet; this may help with \#26) on pp. 619-621.
12.3: $1,3,9,13-25$ odd

Note: For an application in navigation and communications, see pp.629-630.
Look at: 30, 41, 43
12.4: $1,3,5$

Note: I do hope to discuss 12.4 in class near the end of the semester.
This is the one section in Chapter 12 that is not mostly precalc review.

