Math 2574H   **Honors Calculus IV   Spring Semester 2016**

Assignment 3 - Due Thursday 2/11/2016

I had been assuming that everyone attending this class has done Calculus III already (since this is calculus IV), but I realize now that this is not the case. Calculus III is multivariable calculus, and the chain rule in several variables appears there. We need this to understand the way to solve exact equations. It is hard to know what to do about this. I can't spend a week teaching the chain rule. You should not buy a textbook on multivariable calculus, because these are expensive. Maybe it will work to direct you to some things online. I got the links below from Google. You need to know about partial derivatives:
https://www.math.hmc.edu/calculus/tutorials/partialdifferentiation/
http://tutorial.math.lamar.edu/Classes/CalcIII/PartialDerivatives.aspx

The chain rule:
https://www.math.hmc.edu/calculus/tutorials/multichainrule/
http://tutorial.math.lamar.edu/Classes/CalcIII/ChainRule.aspx
https://www.youtube.com/watch?v=NircIRdNUrE

I hope this helps.

Exercises from Edwards and Penney:

I decided to make the questions from 2.1 due next week, so these questions are repeated from Assignment 2.
2.1: 2, 4, 10, 15, 16, 21, 23
2.2: 1, 6, 11, 21
2.3: 1, 7, 10, 20, 25, 26

Assignment 4 - Due Thursday 2/18/2016

The first mid-term exam will be held on this day. It will be on sections 1.1-2.3 of the book.

Exercises from Edwards and Penney:
2.4: 1, 4
3.1: 1, 3, 5, 9, 15, 25, 29, 33
3.2: 1, 5, 7, 13, 15, 25
3.3: 1, 9, 18, 32, 35