

NAME(S): _____ TA (circle one): Elizabeth Christian

_____ SECTION (circle one): 8AM 12PM 4PM 5PM
6PM 7PM

Project #1: Undoing the Chain Rule Solutions Page

Feedback

quality of mathematical ideas (7 pts)	
clarity of communication (3 pts)	

Please write your group or individual solution on this page. Staple any additional work for your solutions on the back of this page to turn in during section WEEK 2. If you cannot attend section, get your solutions to your TAs mailbox in SH 6617 by 4:00pm the day your section meets. If you are crashing the course, bring your solution to lecture on Thursday of Week 2.

Problem 1 Use the ideas you developed in your pre-work to find some solutions to the following differential equations. You may describe the solution as being an implicitly defined function, but be sure to note when you are “undoing” the chain rule in your solution.

(a) $y' = \frac{x+1}{y-1}$

(b) $y' = e^{x+y}$

Problem 2¹ Now solve the differential equation

$$y' = \frac{3x^2 - 1}{2y}.$$

In the space below write up the solution as though it were a “how to” example in a text-book. Make sure you explain the mathematics behind each step and be sure to note when you “undo” the chain rule.

¹This problem will be graded according to the DP Evaluation Rubric handout, available on GauchoSpace.