

MATH 32

TAKE-HOME QUIZ

DUE: 04/10/13

Name: \_\_\_\_\_ Total Points = 50

Please provide detailed solution to each problem in the list. Incomplete packets will not be graded. Each problem is worth 5 points. I will pick 10 problems at random for a score of 50 points. This quiz will replace low or a missed quiz score.

You may refer to notes , book but work on your own.

Pg. 911: 4

Pg912: 16, 34, 36, 60, 66, 84.

Pg 922: 4, 14, 42

Pg 930: 14, 26, 30, 34.

Pg 932: 46, 50.

Pg943: 6, 8,14.

Problem: You are told that there is a function  $f$  whose partial derivatives are  $f_x(x,y) = x + 7y$  and  $f_y(x,y) = 3x - 5y$ . Use Clairaut's thm to answer the question, "would you believe it?" why or why not.

Problem: Use the differentials to estimate  $\sqrt{(7.1)^2 + (4.9)^2 + (70.1)^2}$ , set up appropriate function . Compare to the actual value using the calculator and report the percentage error