

Quiz 4

DUE: MON. SEP. 29

Name: _____

Date: _____

Friday September 26

Time Begun: _____

Ron Buckmire

Time Ended: _____

Topic covered: Functions of Two Variables

The point of this quiz is for you to demonstrate your facility with functions of more than one variable. Specifically, you should know how to take partial derivatives.

Reality Check:

EXPECTED SCORE : _____/10

ACTUAL SCORE : _____/10

Instructions:

0. Look for a hint about this quiz online, at <http://blackboard.oxy.edu>.
1. Once you open the quiz, you have 30 minutes to complete it.
2. You **may not** use the book or any of your class notes, but you may use a calculator. You must work alone.
3. If you use your own paper, please staple it to the quiz before coming to class. If you don't have a stapler, buy one.
4. After completing the quiz, sign the pledge below stating on your honor that you have adhered to these rules.
5. Relax and enjoy....
6. **This quiz is due on Monday, September 29**, at the beginning of class. **NO LATE QUIZZES WILL BE ACCEPTED.**

Pledge: I, _____, pledge my honor as a human being and Occidental student, that I have followed all the rules above to the letter and in spirit.

SHOW ALL YOUR WORK**From Math 118 Final Exam, Question #4.** Let $f(x, y) = x^2y^2$.

(a) (7 points) Find the following derivatives:

$$f_x =$$

$$f_y =$$

$$f_{xx} =$$

$$f_{yy} =$$

$$f_{xy} =$$

(b) 3 points. For what values of (x, y) will f_x and f_y be exactly equal to zero simultaneously? (In other words, solve $f_x = 0, f_y = 0$ for x and y)