Math 110 Fall 2000

Quiz **6** — Basic Calculus I

Name: _____

Date: _____
Time Begun: _____
Time Ended: _____

Math 110
Wednesday, October 18, 2000
Ron Buckmire
Alan Knoerr

Topic: Rules of Differentiation

The idea behind this quiz is to assess your ability to apply the rules of differentiation to various examples.

Instructions:

1. Once you open the quiz, **you have 30 minutes to complete it**.
2. You may use the handout on **Rules of Differentiation** distributed in Class 22, but not your text or any other source, including course materials. 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. Your solutions must have enough details such that an impartial observer can read your work and determine HOW you came up with your solution.
6. **This quiz is due on Friday, October 20**, 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.

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SHOW ALL YOUR WORK

(a) *(4 points.)* $f(x) = 4e^x \sin(x)$. Evaluate $f'(0)$.

(b) *(3 points.)* Given $g(s) = \dfrac{\ln(s)}{2s}$, compute $g'(s)$.

(c) *(3 points.)* Given $h(t) = \dfrac{1}{\sqrt{t}} + 2^t + 4t^2$, find $h'(t)$.