

Math 120 Spring 98

Quiz 3

Name: _____

Date: _____

Time Begun: _____

Time Ended: _____

Basic Calculus 2

Friday February 6, 1998

Ron Buckmire

Topic covered: Using the Fundamental Theorem Of Calculus

The point of this quiz is to give you an opportunity to use the fundamental theorem of calculus to solve an initial value problem.

Instructions:

1. Once you open the quiz, you have 60 minutes to complete it.
2. You may use the book or any of your class notes, and 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, February 9, in 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.

1. Write down the accumulation function, $y(x)$, which is the solution of the initial value problem below,

$$y' = \sqrt{x}, \quad y(1) = 0$$

2. Write down an antiderivative for \sqrt{x} .
3. Use your answers from (1) and (2) to write down the solution of the equation in (1) as an **EXPLICIT FUNCTION** $y(x)$ which does not have an integral sign in it. You should check that your expression for $y(x)$ completely satisfies the initial value problem given in (1).