

Quiz 8

DUE: WED. APR. 2

Name: _____

Date: _____

Time Begun: _____

Time Ended: _____

Monday March 31

Ron Buckmire

Topic covered: Improper Integrals

The point of this quiz is for you to demonstrate your understanding and ability to evaluate improper integrals, using the Fundamental Theorem and also using Comparison Techniques.

Reality Check:

EXPECTED SCORE : _____/10

ACTUAL SCORE : _____/10

Instructions:

1. Once you open the quiz, you have 30 minutes to complete it. Before you open the quiz you should check Blackboard.oxy.edu for any hints.
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 extra 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. Complete the reality check to give yourself a sense of how well you think you did on the quiz.
5. Relax and enjoy....
6. **This quiz is due on Wednesday, April 2**, 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.

EXPLAIN YOUR ANSWERS

- (a) (5 points) Does the following integral converge or diverge? **WHY?**

$$\int_{-\infty}^0 e^t dt$$

- (b) (5 points) Does the following integral converge or diverge? **WHY?**

$$\int_1^{\infty} \frac{1}{s^2 + s} ds$$

(HINT: You will have to answer the question WITHOUT knowing the anti-derivative of $\frac{1}{s^2 + s}$, i.e. you will need to use the Comparison Theorem.)