Math 120 Spring 2003 — Basic Calculus 2

Quiz **10**

DUE: WED. APR. 16

Name: _____

Date: _____ **Monday April 14**
Time Begun: _____ Ron Buckmire
Time Ended: _____

Topic covered: Using Convergence Tests

The point of this quiz is for you to demonstrate your understanding and ability to determine convergence or divergence of an infinite series, using appropriate tests. This will also thus illustrate your facility with infinite limits.

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 16**, 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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EXPLAIN YOUR ANSWERS

Determine whether the following infinite series converge or diverge. (State clearly what test(s) you are using and how your result indicates either convergence or divergence). It's always a good idea to write out the first 3 or 4 terms of the series to see if you can see any helpful patterns.

(a) *(5 points)* $\sum_{k=0}^{\infty} e^k$

(b) *(5 points)* $\sum_{k=0}^{\infty} \frac{2k}{3^k}$