

## Quiz 7

DUE: MON. MAR. 31

Name: \_\_\_\_\_

Prof. Ron Buckmire

Date: \_\_\_\_\_

Friday March 28

Time Begun: \_\_\_\_\_

Time Ended: \_\_\_\_\_

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**Topic covered:** Convergence Tests for Infinite Series

The **student learning outcome** of this quiz is to give you more practice in applying convergence tests to infinite series.

**Reality Check:**

EXPECTED SCORE : \_\_\_\_\_/10

ACTUAL SCORE : \_\_\_\_\_/10

**Instructions:**

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 extra paper, please staple it to the quiz before coming to class. **UNSTAPLED SHEETS WILL NOT BE GRADED.**
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 Monday, March 31**, 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 YOUR WORK**

Determine whether the following infinite series converge or diverge. Support your answer by referring to what test you used to make your determination. You get one point for writing the correct choice of convergence and divergence in the box and the rest of the points for the reasoning behind your answer.

1. (3 points)  $\sum_{k=1}^{\infty} \left(-\frac{1}{2}\right)^k$

2. (4 points)  $\sum_{k=1}^{\infty} \frac{1}{k^2 + 3}$

3. (3 points)  $\sum_{k=1}^{\infty} k^{3/2}$