

## Quiz 3

DUE: MON. FEB. 10

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

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

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

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

Friday February 7

Ron Buckmire

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**Topic covered:** Evaluating Definite Integral Using Anti-derivatives

The point of this quiz is for you to illustrate your ability to use Antiderivatives to evaluate definite integrals.

**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 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 Monday, February 10**, 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) (2 points) Compute the exact value of  $I_1 = \int_{-2}^2 x dx$ . EXPLAIN YOUR ANSWER.

(b) (2 points) Compute the exact value of  $I_2 = \int_{-2}^2 1 dx$ . EXPLAIN YOUR ANSWER.

(c) (2 points) Compute the exact value of  $I_3 = \int_{-2}^2 2x + 3 dx$ . EXPLAIN YOUR ANSWER.

(d) (2 points) Consider  $F(x) = x^2 + 3x - 7$  and  $G(x) = x^2 + 3x + 4$ . Which of the functions  $F(x)$  and  $G(x)$  are antiderivatives for the function  $h(x) = 2x + 3$ ?

(e) (2 points) Show that  $F(2) - F(-2) = G(2) - G(-2) = C$  where  $C$  is the value of a specific definite integral. Write down that specific definite integral.