

MATH 333 001 Web-Site Quiz – Fall 2007 – Name: _____1

The assignments and syllabus will be at links from the webpage:

<http://math.boisestate.edu/~kerr>

Where it says **Course Webpages**, click on **MATH 333** in the Fall-2007 line. This will bring you to the *Assignment Page* where assignments and announcements will appear. You'll resort to this page constantly and frequently.

Find the course web pages and answer the following:

1 Give Test dates

#1: _____

#2: _____

#3: _____

2 When is the last day

to drop a class? _____

3 When is the final exam?

Day: _____

Date: _____

Hours: _____

4 Where is the instructor's office?

5 What is the absolute minimum number of times one should check the assignment webpage in a generic week this semester?

6 Alumbaugh earned these scaled percentages on homework and exams for this class:

Homework & Quizzes	Test #1	Test #2	Test #3	Final Exam
77	74	82	76	88

Alumbaugh's overall average: _____

Alumbaugh's final letter grade: _____.

- 7 Show that the expression $y = C_1 \cosh(2t) + C_2 \sinh(2t)$ is a solution of the differential equation

$$y'' - 4y = 0.$$

At the top of page 4 of our text is some advice about this question. See also problem 1.2: 16.

- 8 If we pour **3 gal** of pure water and **2 gal** of pure alcohol together, we get very close to **5 gal** of solution.

(a) What is the by-volume alcohol concentration of this solution (quoted as a percent)?

(b) Suppose a huge tank of this solution is being pumped out at **300 gal/min**. At what rate is pure alcohol being pumped out of the tank?

- 9 Prove the trigonometric identity:

$$\sum_{k=0}^{\infty} \sin(\theta)^{2k} = \sec(\theta)^2$$