AP Calculus AB 2010
FINAL ASSIGNMENTS

I. Calculus Project (see handout on following page) – 10% of Final Grade

Projects must be submitted on or before June 7th.
Examples of old projects can be seen in the classroom.

II. Final Exam (2nd Semester Material Only) – 20% of Final Grade

The purpose of this final exam is to provide an accurate reflection of what you learned in this class during the second semester. To prepare for this final exam, you should refer to notes, homework assignments, quizzes, and chapter tests. The following chapters are covered on the final exam:

Chapter 5
Chapter 6 – Skip Euler's Method, Skip Antidifferentiation by Parts, Skip Logistic Growth
Chapter 7 – Skip 7.4 & 7.5

- Final Exam will be on Friday, June 11th (3rd Period)
- Exam will contain some Multiple Choice questions and 1 Free Response Question from this year's AP Exam.
- A review sheet will be available for download on Monday, May 31, 2010.

*If you miss the final, you will receive a non-passing grade in the class.

I, _____, fully understand the assignments that are required of me to complete the course. I understand there are opportunities to raise my grade by re-testing past exams. If at any time, I choose not to participate in the project nor take any part of the final exam then I fully accept the consequences. Moreover, since I have an opportunity to retake exams, I shall not expect the overall grades to be curved. Furthermore, I have discussed these assignments with my parents and are fully aware of my responsibilities for the remainder of the school year.

Student name_____ Student signature_____

Parent name_____ Parent signature_____

Date_____

Calculus Project
Volumes of Solids with Known Cross-section

Make a physical model of a solid with a known cross-section.

1) The base is to be a region enclosed by given functions or the region between a given function and given lines.
2) The cross section can be any shape.
3) Materials for your project could be cardboard, foam poster board, plywood or even clay. The material should be about 1/4 inch thick and you need to have at least 24 "slices."
   *If you use foam poster board or cardboard, be sure you use a sharp knife (like an exacto knife).

When you turn in your completed project you need to include

1) A base for your model with the functions graphed and labeled.
   I will check to see if your model fits on this base. It is OK to use graphing software to graph your functions.
2) An explanation of what the cross section looks like and a model of a single slice.
3) The computed volume of each slice in your model and the total volume of all slices. Be sure to include units.
4) The theoretical volume as defined by a definite integral. You may use the numerical integration feature of your calculator to calculate your answer. Be sure to include units.

Points will be awarded for

Difficulty of the function and cross section used	10 points
Neatness and appeal of your model	10 points
Presentation of the information and calculations	10 points

Those projects showing extra effort and performance can earn extra credit points.

You may work with a partner for this project. Be sure to put both names on your finished product.
All projects are due at the beginning of the period on or before June 7th.

DUE DATE: _____JUNE 7th _____

Daily Class Log Sheet

Please log what you do in class each day and have the teacher initial before you leave. Turn in this sheet on the day of the final exam (June 11th).

Date	Today I…	Teacher initials