Final Exam Study Guide

The final exam will be comprehensive with a very slight emphasis on sections 5.1, 5.2, 6.2 and 6.3.

To review the older material, look over Exam 1, Exam 2, and the additional practice problems.

Chapter 5: Integration

Section 5.1: Indefinite Integrals

- Know how to find indefinite integrals (antiderivatives) using the rules of integration 1 – 5 on page 196 of the text.
- Be able to explain why the constant of integration C is necessary in the solution to an antiderivative.
- Know how to solve an initial value problem given either an equation (such as 5.1 #26) or an application (such as 5.1 #32a).

Section 5.2: Definite Integrals

- Understand the difference between indefinite and definite integrals.
- Be able to evaluate definite integrals.

Practice questions for Chapter 5:

From the text:

5.1 # 1 – 7, 19, 20, 25, 26, 32
5.2 # 1 – 4, 7, 16
Chapter 5 Review (Pages 208 – 211) # 1, 2, 5, 25, 27, 28, 33

Note: many of the above questions from your textbook have answers in the back of the book, but the solutions are also here for your convenience.
Chapter 6: Integration and Area

Section 6.2: Approximate Values for Area

- Know how to use the Trapezoid Method, Left rectangular Method and Right Rectangular Method to estimate the area of a plane region bounded by the graph of a function above the axis on a closed interval.

Section 6.3: Exact Value for Area

- Be able to use the Fundamental Theorem of Calculus to find the area of a plane region bounded by the graph of a function above the axis on a closed interval.

Practice questions for Chapter 6:

From the text:

6.3 # 1 – 5, 9
Chapter 6 Review (Pages 269 – 272) # 6, 7, 17, 19

Note: many of the above questions from your textbook have answers in the back of the book, but the solutions are also here for your convenience.

Additional practice problems (for both the new material and the review material) can be found here: additional practice problems.