

# Exam I Study Aid

Exam I : Sections 7.1 - 7.5  
Friday, February 6th (In Class)

Our first in-class exam will cover all of the material we have discussed so far in class (however, you will also be responsible for all of the material covered in 122B). You will have the entire class period (50 minutes) to complete the exam (you may leave once you are finished).

Below is a list of the main concepts or definitions you should definitely know and be comfortable with. (Note: this list is not a comprehensive list of all the topics we have learned in Sections 7.1 through 7.5, it is simply a list of the most important topics. Hence, as a warning, there may be topics on the exam which are not listed below – i.e., don't simply study this list and nothing else!)

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|--------------------------------|---|
| 1. Integration by Substitution | 5. Completing the Square                              |
| 2. Integration by Parts        | 6. Partial Fractions                                  |
| 3. Using a Table of Integrals  | 7. Trigonometric Substitutions                        |
| 4. Polynomial Long-Division    | 8. LEFT( $n$ ), RIGHT( $n$ ), MID( $n$ ), TRAP( $n$ ) |

Finally, here is a list of good practice problems that might help you in studying. All of the problems were picked to be odd numbered so that their solutions would be found in the back of the book.

- Section 7.1 – 19, 21, 27, 31, 39, 55, 59, 91, 93, 95, 125
- Section 7.2 – 3, 5, 9, 13, 15, 23, 29, 33, 35, 67, 69
- Section 7.3 – 1, 5, 9, 13, 15, 21, 27, 29, 31, 33, 35, 41, 45, 49
- Section 7.4 – 1, 3, 5, 7, 15, 19, 23, 31, 33, 35, 37, 39, 41, 47, 55, 57, 59
- Section 7.5 – 1, 3, 5, 11, 15, 17

In addition, be sure to review the problems from Written Homework 1 & 2.