

# Exam II Study Aid

Exam II : Sections 7.6, 7.7, 8.1, 8.2, 8.4  
Wednesday, March 4th (In Class)

Our second in-class exam will cover all of the material we have discussed since our first exam. 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, 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. Improper Integrals (of both types)           | 5. Areas/Volumes by Slicing                     |
| 2. Convergence/Divergence of Improper Integrals | 6. Volumes of Revolutions                       |
| 3. Comparison of Improper Integrals             | 7. Volumes of Regions with Known Cross-Sections |
| 4. Standard Improper Integrals (for comparison) | 8. Arc Length                                   |
|   | 9. Density                                      |

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 7.6 – 5, 9, 11, 17, 19, 27, 33, 49, 51, 53, 57
- Section 7.7 – 11, 13, 15, 17, 19, 21, 23, 25
- Section 8.1 – 1, 3, 5, 7, 9, 13, 15, 17, 25, 27
- Section 8.2 – 1, 3, 5, 7, 11, 13, 15, 17, 19, 25, 27, 29, 31, 43, 45
- Section 8.4 – 1, 3, 5, 13, 17

In addition, be comfortable with the problems/ideas found in Written Homeworks 3-5.