MATH 141 (§§4 & 5)
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Homework Problems for Chapter 6
Applications of the Integral

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6.1	286	# 2, 3, 5, 7, 10, 13, 16, 19, 22
		Concepts Review: # 1–4
6.2	294	# 1, 4, 6, 7, 12, 17, 18, 22, 31
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6.3	301	# 2, 5, 10, 13, 17, 18
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6.4	309	# 3, 6, 7, 9, 10, 12
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Review	324	Concepts Test: # 1 – 6
		Sample Test Problems: # 1 – 6, 11, 15, 16, 18, 19, 20, 22

Notes

- This is the last homework assignment for this course. On the one hand, these problems should be good practice for developing good integration skills. On the other hand, the emphasis will be on setting up the correct integral for a specific physical problem. If you understand the fundamental principles used to develop the results, you'll probably find this pretty easy; if you insist on trying to memorize the results, it can seem quite hard.

- The assigned problems represent a wide level of difficulty. Many are routine problems. In addition, you will also find *i)* applications that require you to find and solve an appropriate formulation of the problem, *ii)* multi-step problems that involve the use of several different ideas and techniques (possibly in new combinations), *iii)* problems that involve parameters with unspecified values, and *iv)* problems that require careful understanding (and re-reading) of the general results that have been developed.

- Each chapter concludes with an extended collection of review problems. These problems — both the Concepts Test and the Sample Test Problems — are ideally suited for review before an exam.

- If you need more practice, there are many other problems in the text that are similar to the ones I have assigned. Also, the Mathematics Library (LeConte, third floor) has a collection of Calculus textbooks. These can be a great resource for students needing additional practice.

- Do not hesitate to ask questions – in class, in recitation, by e-mail, during office hours, or in the Math Lab.

- The fourth exam will be given in class on Friday, April 18. The exam will cover all material through §6.1. As usual, Wednesday's class will be devoted to answering your questions about this material.

- The final exam will be given, in LC 412, at 9AM, on Monday, May 5. The exam will be comprehensive. Additional information about the final will be discussed on the last day of the semester (Monday, April 28).