MATH 141 (§§4 & 5)
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# Homework Problems for Chapter 4
# Applications of the Derivative

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Notes

- This chapter focuses on some of the more common applications of the derivative. Your differentiation skills should be good – this should not cause any problems. The big questions are: when is a derivative needed, what derivative information is needed, and how to use this information to answer the original question.
- 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.