

# Physics 141

## Problem Set 7

Due Monday, Nov. 17 (hand in in class).

Monday, Nov. 10, 2008  
H. J. Frisch; 702-7479

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**2nd Midterm:** The second midterm will be given on Tuesday, November 11, in your regular discussion session at 4:30pm. The emphasis will be on material since the first midterm, but you should review all the problem sets and quizzes and make sure there are no holes.  
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### Reading for Monday, Nov.17: K&K:

Chapter 1, Example 1.8 (p.17)

Chapter 1, Sections 1.8 and 1.9

Chapter 6 **Angular Momentum**, Sections 6.1-6.7. Please do **not** read Examples 6.4, 6.6, and 6.12. You are welcome to read the two Notes at the end of the Chapter, but they are not required reading.

Please read these with a pencil or pen in hand, taking notes. This chapter is very long and dense, and so please allow lots of time- it cannot be read in a single sitting. You may want to discuss the reading section-by-section in your study group.

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**Study Groups** You are strongly encouraged to discuss the problems in a study group to save time. However, the work you hand in has to be your own- you must **NEVER** copy anybody else's work! (grounds for severing your connection).  
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**Problem Solving:** Please always work in symbols and only plug numbers in at the end where and if required. In general you should start by drawing a careful picture, with labelled axes. This is a problem set that will be much easier if you talk through each problem with your study group before starting (draw a picture).  
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1. **Angular Acceleration** K&K Chapter 1, Problem 1.14
  2. **Circular Motion** K&K Chapter 1, Problem 19
  3. **Circular Motion** K&K Chapter 4, Problem 4.6
  4. **Hmmm** K&K Chapter 4, Problem 4.7
  5. **Conservation Laws** K&K Chapter 6, Problem 6.3
  6. **Statics** K&K Chapter 6, Problem 6.5
  7. **Torque** K&K Chapter 6, Problem 6.11
  8. **Torque Etc.** K&K Chapter 6, Problem 6.14
  9. **Energy of Rotation, Translation** K&K Chapter 6, Problem 6.26
  10. **Torque** K&K Chapter 6, Problem 6.30
  11. **Conservation Laws** K&K Chapter 6, Problem 6.38
  12. **Torque Etc.** K&K Chapter 6, Problem 6.41
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