

180A - Test 5		A	B	C
1	CHAP 9-10 6 points <i>Using words, diagrams and equations</i>	Derive and explain eq. 10.10. Compare this to eq. 8.3. How are these two equations analogous? You always need a diagram! I did this in class.	Derive and explain eq. 10.5. Compare this to eq. 4.7. How are these two equations analogous? You always need a diagram! This was done in class.	Show how one can derive the KE of a rotational system from the KE of a linear system. It's on my website. I showed you this in lecture. How are these two quantities analogous? You always need a diagram!
2	CHAP 9-10 6 points <i>You choose</i>	Explain example 9.10. What is the amazing result? Why does the solid sphere win the race? What does the moment of Inertia have to do with the speed? You always need a diagram!	Explain example 10.5, and compare it to example 5.12. Explain the differences. Why is static friction used and not kinetic friction? This is the same as problem #50. It's on my website. I did this in class.	Set-up and explain the FBD in problem #73. I did this in class. How would you begin to solve this problem. Don't solve it!
3	CHAP 9 4 points Multiple Choice	MC Problem #16	MC Problem #5	MC Problem #13
4	CHAP 10 4 points Multiple Choice	MC Problem #10	MC Problem #12	MC Problem #8
5	CHAP 10 4 points Multiple Choice	MC Problem #7	MC Problem #3	MC Problem #9
6	CHAP 9 4 points Basic Problem	Problem #2	Problem #11	Problem #22
7	CHAP 9 4 points Basic Problem	Problem #16	Problem #6	Problem #61
8	CHAP 10 4 points Basic Problem	Draw the FBD for Problem #48. Write the sums of the forces and sum if the torques.	Problem #20	Problem #8
9	CHAP 9/10 24 points DRS	Ch 9 #64	Ch 10 #52	Ch 10 #32

Test Date – Thursday 4/22/08 at 7:50 am

You will **randomly** receive one of three versions of the test above. You cannot have any notes. There are two questions (1 and 2) that require you to write a complete and concise explanation along with an appropriate diagram and mathematical logic (equations). Practice these questions. Write your answer out. Do not use paragraphs. Use bullets or steps. Pretend that you are to provide an explanation to the class.

There are 3 multiple-choice questions which require a correct and **brief explanation** as to why you chose your answer. There are also 3 basic problems that require you to show some of your work. These are not easy or simple problems. Basic means that you are capable and prepared to solve these problems.

Problem 9 requires that you show a complete diagram, clear reasoning and a correct solution. Practice drawing your diagram. Diagrams are important. They demonstrate your knowledge and understanding of the problem. They are not for show. I will start this test at 12:30 pm. You will have 75 minutes. **NO programmable calculators**. No books or notes.