MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Department of Physics

Physics 8.01X   Fall Term 2002

SUGGESTED PROBLEMS FOR REVIEW

Here's a list of problems in the textbook (which have answers at the back), which may be helpful to review. They are somewhat weighted toward the later material. If you have limited time, try to cover different topics, or the topics you feel least confident in.

Kinematics: 3-53, 3-57, 3-67
Newton's Laws: 4-45, 4-47, 5-69, 5-81, 5-97, 5-107
Work and Kinetic Energy: 6-51, 6-63, 6-77, 6-83
Potential Energy and Conservation of Energy: 7-41, 7-53, 7-61, 7-63
Momentum, Impulse, Collisions: 8-61, 8-65, 8-69, 8-83
Rigid Bodies, Rotational Kinematics: 9-61, 9-63, 9-65, 9-71, 9-75
Rotational Dynamics: 10-45, 10-49, 10-53, 10-59, 10-61, 10-63, 10-67, 10-69, 10-71, 10-73
Elastic Properties of Solids: 11-21, 11-23
Statics: 11-47, 11-49, 11-47, 11-59, 11-61
Periodic Motion: 13-41, 13-49, 13-51, 13-61
Fluids: 14-57, 14-69 14-71, 14-75, 14-77, 14-85, 14-89, 14-91
Heat Flow: 15-31, 15-89

How To Prepare For the Experiment Problems
    There will be at least two experiment related problems on the exam. You should make sure that you understand the data analysis and concepts from all of the experiments. As you have seen on the midterms and the practice exams, a typical problem might require you to calculate some quantity from a subset of data, in the same way as you did in the experiment analysis. To practice this, you can take a subset of your own data and try to get the same results. Make sure you can derive all the same quantities.