

Review for Test #2

□ Responsible for:

- Chapters 5, 6, 7, and 8, (except 8-5), sections 3-6, 12-1, 12-2, and 12-3* (also chapters 1-4)
- Notes from class
- Problems worked in class
- Homework assignments

□ Test format:

- 18 problems (5 points each)**
- multiple-choice, some T/F, 2 bonus probs.
- Time: 75 minutes

□ Test materials:

- Pencil, eraser, and calculator
- No formulae sheet or paper, Closed textbook/notes
- Student ID

Rules for the Test

- ❑ One, and only one, empty seat between each student
- ❑ Test version number on scantron must match test version number on roll sheet
- ❑ No talking during test, except to proctors or instructor
- ❑ Put name and 810/811 number on scantron
- ❑ Must have correct ID or scantron will not be accepted

Material Covered

- Chapters 5-6: Forces and Newton's Laws of Motion
 - normal, friction, weight, mass, tension, ropes, pulleys
 - Newton's 1st, 2nd, and 3rd Laws
 - Free-body diagrams, inertial frames
 - Application of $\sum \vec{F} = m\vec{a}$
 - Spring force
 - uniform circular motion
 - radial acceleration, banked curves

- Sections 12-1, -2, and -3: Universal gravitational force, orbital speed, orbital period, Kepler's Laws

- Section 3.6: Relative velocity, Galilean Transformation