Study Guide for Quiz 1 - Summer 2009

Chapter 1

Concepts: The Nature of Physics, Scientific Theory, Units, Unit and Dimensional Analysis, Sig. Figs, Powers of Ten, Trigonometry, Vectors and Vector Addition, Components of a Vector, Reasoning Strategy.

Diagrams: 5-21 Know how to explain them
Examples: 1-9

MC Questions: All of them
Problems: Know all basic and medium problems **except** the following---> 5, 6, 11, 15, 17, 19, 20, 22, 25, 26, 29, 30, 32, 43, 44, 52, 54, 55, 56, 60, 65, 68 *most of the rest are repetitious, please do not try to do all of them. I did many problems on the board and on the web site.*

Chapter 2

Concepts: Displacement, Speed and Velocity, Average Velocity, Instantaneous Velocity, Acceleration, Derivatives, Motion Equations, FreeFall, Reasoning Strategy, Graphical Analysis (Motion Diagrams on Web). How did Galileo explain the rate at which objects fall?

Diagrams:1-21 Know how to explain them
Examples: All of them

MC Questions: All of them
Problems: Know all basic and medium problems **except** the following---> 2, 5, 6 10, 11, 13, 14, 16, 19, 22, 23, 34, 36, 38, 39, 40, 41, 42, 47, 48, 51, 54, 58, 60, 64, 65 66, 67, 68, 69, 74, 75, 78, 79, 80, 81, 83, 85, 86, 87, 88 *most of the rest are repetitious, please do not try to do all of them. I did six problems on the board and on the web site.*

***Tips**: Think basic. Be early. I will review for 30 minutes. Know your book. Show any necessary work. Draw neat and complete diagrams where necessary. Open Book, no notes or loose papers. Only notes written in the book and small tabs are allowed. No written out solutions anywhere.*