

Chapter 28 Study Guide

Prior to lecture:

1. Read Ch. 28 in textbook
2. Work through example problem 28.1 and 28.5.
3. Complete the “Check your Understanding” problems on page 1009.
4. Answer conceptual questions 1, 5, and 10 on page 1028 of the text.
5. Define the following terms:
 - a. Inertial frame of reference
 - b. Einstein’s postulates of special relativity
 - c. Proper time
 - d. Time dilation
 - e. Proper length/distance
 - f. Length contraction
 - g. Relativistic velocity addition
 - h. Doppler shift
 - i. Relativistic momentum
 - j. Relativistic kinetic energy
 - k. Total energy
 - l. Rest energy

After the lecture

1. Review notes from lecture.
2. Redo all example problems from lecture.
3. Reread text
4. Work through example problem 28.3, 28.4, 28.7 and 28.8.
5. Redo all recitation worksheet problems
6. Answer conceptual questions 4, 7, 8, 11, 16 and 21 of the text.
7. Complete homework for chapter 28
8. For extra practice, try the following problems from chapter 28 of the textbook: 2, 4, 5, 10, 12, 17, 20, 24, 26, 28, 34, 35, 46, 51, 52, 58, 60, 62 and 65.