

Chapter 9 Study Guide

Prior to lecture:

1. Read Ch. 9 in textbook
2. Complete the “Check your Understanding” problem on page 288, 291, 294 and 295 of the text.
3. Define the following terms:
 - a. Frequency
 - b. Wavelength
 - c. Wave speed
 - d. Superposition and Interference
 - e. Beat
 - f. Doppler effect
 - g. Electromagnetic spectrum
 - h. Law of Reflection
 - i. Refraction index of a medium
 - j. Law of Refraction
 - k. Dispersion of light
4. On a sheet of paper, summarize the “Misconception alert” on page 289.
5. Answer conceptual questions 1, 2, 4, 6, 9, 14, 18, 21 and 23 on pages 360 and 361 of the text.
6. Work through example problem 9.1, 9.2 and 9.4.
7. Try the take-home experiments on page 289 and 300 of the text.

After the lecture

1. Review notes from lecture.
2. Redo all example problems from lecture.
3. Work through example problem 9.5 of the text.
4. Complete the “Check your Understanding” problem on page 300 of the text.
5. Complete the worksheet problems.
6. Try the take-home experiments on page 312 and 324 of the text.
7. Answer conceptual questions 5, 10, 16, 18, 25, 26 and 27 of the text.
8. For extra practice, try the following problems from chapter 25 of the textbook: 1, 3, 7, 9, 14, 17, 18, 25, 34, 37, 58, 60, 61, 63 and 65.