Physics 116C **Homework Set #5** **Fall 2011**

DUE: TUESDAY November 1, 2011

MIDTERM ALERT: The midterm exam will take place from 2–3:45 pm on Thursday November 3, 2011 in the Physical Sciences Building, Room 110 (our usual classroom). The exam will cover material from the first five homework sets, and include material from Boas, Chapters 12 (all sections) and Chapter 13 (sections 1–4 and 6). During the exam, you may consult Boas, your class notes (and any other handwritten notes), and any of the homework solutions and class handouts that are posted on the course website.

To receive full credit, you must exhibit the intermediate steps that lead you to your final results. Computer plots are optional.

1. Boas, p. 632, problem 13.3–2

2. Boas, p. 632, problem 13.3–6

3. Boas, p. 633, problem 13.3–8

4. Boas, p. 633, problem 13.3–12

5. Boas, p. 637, problem 13.4–4

6. Boas, p. 638, problem 13.4–7

7. Boas, p. 638, problem 13.4–9. You are only required to find the frequency of the most important harmonic for the previous two problems.

8. Boas, p. 646, problem 13.6–2

9. Boas, p. 646–647, problem 13.6–3

10. Boas, p. 647, problem 13.6–8