PHYS 333 — Problem Set #16

Reading: Chapter 5.1–5.3

Problems: Due Friday October 24

1. Griffiths 5.1

2. Griffiths 5.2a,b (Use results from Example 5.2 along with initial conditions given in problem. Plotting will be "easy" with appropriate computer tools.)

3. Griffiths 5.3

4. Griffiths 5.4

5. Griffiths 5.5

6. Griffiths 5.6

7. Griffiths 5.8 (Use results derived in class and text to help solve this.)

8. Griffiths 5.9

9. Griffiths 5.10

10. Griffiths 5.11 (You do not have to work with θ_1 and θ_2 as given in the diagram. I find it more straightforward to think about this in terms of the length of the cylinder, L, and a distance away from the cylinder.)

11. Griffiths 5.13